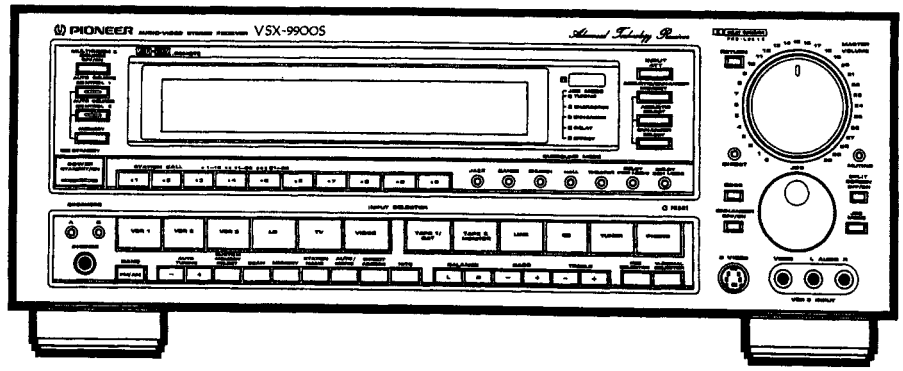
PION-B03195

Operating Instructions

AUDIO/VIDEO STEREO RECEIVER

VSX-9900S



Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE
[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

RETURN function

This function returns the unit to a set of initial settings and ready to broadcast tuner. This is helpful during troubleshooting or when no sound is output. For details, refer to "FRONT PANEL FACILITIES," page 19.

RESET function

Use this function when normal operation becomes impossible because of external influences such as static electricity or lightning, or when operation is impossible even when operation switches are pressed. Press the reset button to return to normal operating conditions.
If you press this button, the entire contents of the memory are cleared.

About the Demonstration Mode

- The demonstration is activated by turning on the power switch while holding down the RETURN button (from power standby condition). The demonstration will appear on the display.
- Press any other switch to cancel the demonstration.

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The Art of Entertainment

IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SAFETY INSTRUCTIONS

READ INSTRUCTIONS – All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS – The operating instructions should be retained for future reference.

HEED WARNING – All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS – All operating and use instructions should be followed.

WATER AND MOISTURE – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION – The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING – The appliance should not be mounted to a wall or ceiling.

VENTILATION – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION – If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING – The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES – An outdoor antenna should be located away from power lines.

NONUSE PERIODS – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE – The appliance should be serviced by a Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged.
- Objects have fallen, or liquid has been spilled into the appliance.
- The appliance has been exposed to rain.
- The appliance does not appear to operate normally or exhibits a marked change in performance.
- The appliance has been dropped or the enclosure damaged.

SERVICING – The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING – If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

CART – An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

NEC — NATIONAL ELECTRIC CODE

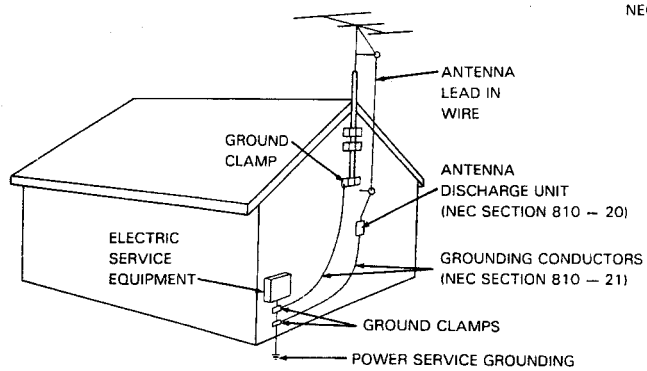
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810 – 20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810 – 21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

FIG. A

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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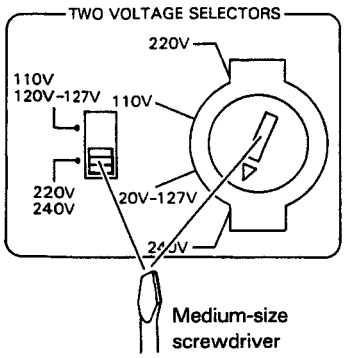
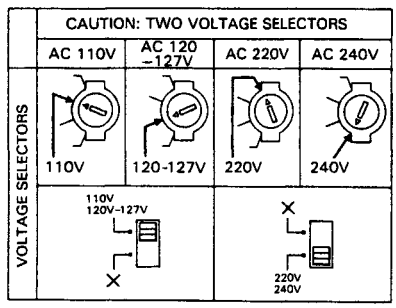
BEFORE OPERATING, ADJUST THE POSITION OF THESE SWITCHES

TWO VOLTAGE SELECTOR SWITCHES

Only multivoltage models are provided with these switches. U.S., Canadian, European, U.K. and Australian models are not provided with these switches.
Mains voltages in Saudi Arabia are 127 V and 220 V only. Never use this model with 110 V setting in Saudi Arabia.
The line voltage selector switches are on the rear panel. Before your model is shipped from the factory, these switches are set to the power requirements of the destination. Check that they are set properly before plugging the power cord into the household wall socket. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-size screwdriver.
2. First, insert a screwdriver in the groove of the voltage selector at the right, and adjust so that the tip of the groove points to the voltage value of your area.
3. Next, insert a screwdriver in the groove of the voltage selector at the left and adjust until the voltage is the same as at the right.



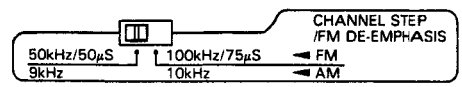


NOTE:
Both switches must be in the same switch setting; otherwise, unit can be damaged.

CHANNEL STEP/FM DE-EMPHASIS SWITCH (Not available on U.S. and Canadian models)

The unit has been factory-preset to the channel allocation and de-emphasis value for the area in which it is to be sold. If these values are set incorrectly, the frequency display may stop at the wrong frequency, or sound may be distorted, resulting in an inability to reproduce reception signals at their proper sound quality. For this reason, be sure to confirm that the values are set correctly before first using the unit.
[100kHz/10kHz/75μs] position:
Set to this position for areas with an FM reception step of 100kHz, AM 10kHz, and de-emphasis 75μs.
[50kHz/9kHz/50μs] position:
Set to this position, for areas with an FM reception step of 50kHz, AM 9kHz, and de-emphasis 50μs.

NOTE:
When unsure about the channel allocation and de-emphasis values for your area, consult your dealer for correct information.



FEATURES

- **DOLBY PRO LOGIC SURROUND performed by a Digital Signal Processor (DSP).**
- **DSP provides five Sound Field Control (SFC) simulated surround settings.**
- **Multi-Room & Source**

Using this unit in combination with the optional MR-100 Multi-Room System Remote Control Sensor Unit lets you enjoy different sources in different rooms at the same time.

- **Enhancer, Split screen function**

The built-in detail-type enhancer is beneficial when making copies of VCR tapes. By using the split-screen function, you can simultaneously view the enhanced and original (non-enhanced) images. In this way you can select the optimum settings for enhancing the image.

- **Input attenuator**

Depending on the component or source, input level to this unit may be too high, possibly resulting in a distorted sound during playback. For this reason, there's a built-in attenuator to decrease the level, thereby eliminating distortion.

- **Auto source control function**

This function lets you store your usual receiver settings in memory, and call them up simply by pressing the call up button. (Up to two patterns can be memorized.)

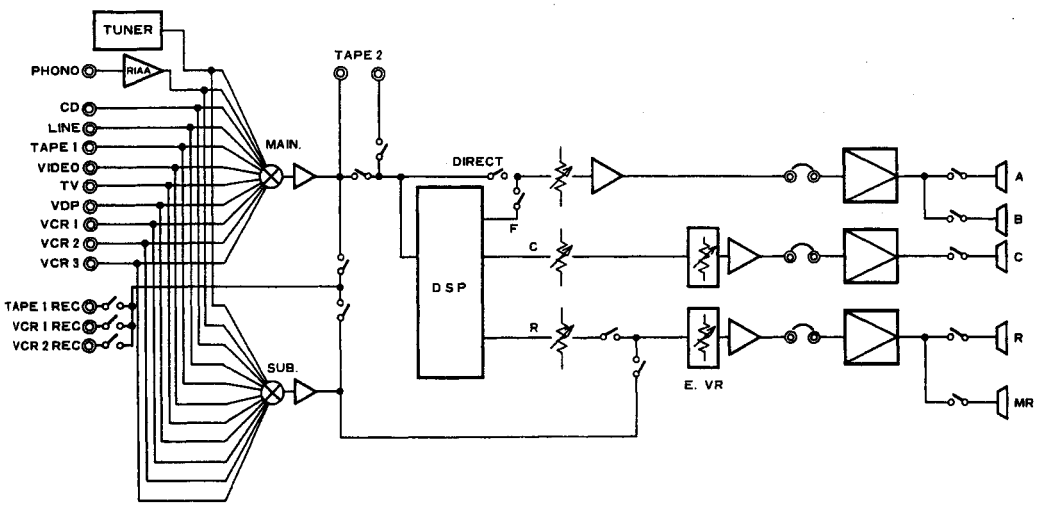
- **Confirm function (remote control operation)**

This function indicates receiver settings in the display section at the touch of a remote control button.

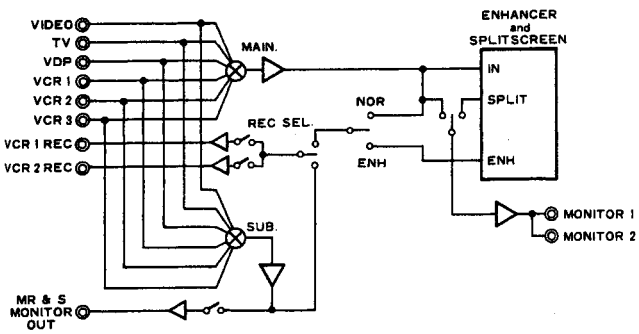
- **Equipped with the JOG dial, designed for easier operation.**
- **Digital Simulated Stereo System (DSSS)**
- **Audio/Video programmable remote control unit.**

BLOCK DIAGRAM

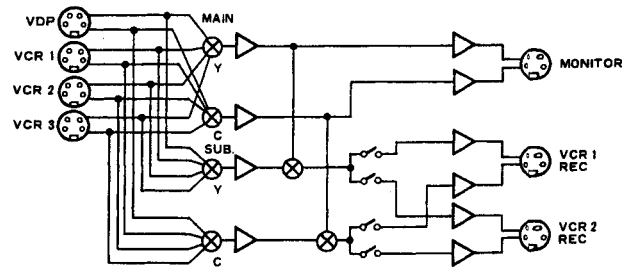
AUDIO



VIDEO



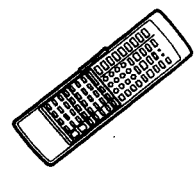
S. VIDEO



ACCESSORY ITEMS

FM T-type Antenna

AM Loop Antenna



Audio/Video programmable remote control unit

Alkaline dry cell battery x 2 (size "AA" (LR6/AM-3))

DSSS (Digital Simulated Stereo System)

Special DSP circuitry gives you simulated stereo sound from monaural sources.
This operates even when a monaural signal is input into both the left and right channels, or only one of the channels. When a signal is input into only one channel, the output level is lower than when the signal is input into both the left and right channels.
You can also enjoy combining it with surround modes other than THEATER, DOLBY PRO LOGIC SURROUND or DOLBY 3CH LOGIC.

SURROUND MODE

This unit is equipped with DOLBY PRO LOGIC SURROUND. There's also a DSP (Digital Signal Processor), with a choice of five SFC (Sound Field Control) simulated surround settings.

- **JAZZ:**

This gives you the sound field of a jazz club.

- **DANCE:**

A "hot" high-energy sound, with extra reverb for greater ambience.

- **CHURCH:**

The sound field of a church, ideal for reproducing the rich sound of a pipe organ.

- **HALL:**

You can enjoy a convincing hall sound.

- **THEATER:**

Use this when watching movie sources that have a stereo soundtrack to enjoy the effect of being in a movie theater. It is also effective when used with video software bearing the DOLBY SURROUND mark. (It can not be used simultaneously with DOLBY PRO LOGIC SURROUND or DOLBY 3CH LOGIC.)

• DOLBY PRO LOGIC SURROUND

Choose this setting for movies and music (especially Video Discs and video tapes bearing the DOLBY SURROUND mark) playback. DOLBY PRO LOGIC SURROUND continuously detects the size and direction of the dominant signal and cancels undesirable crosstalk, thereby providing signal emphasis.
You can clearly perceive the directions and source of the music. Real flow of sound also can be re-created naturally using this feature. It gives the feeling of being in an outstanding and expansive sound field. When using DOLBY PRO LOGIC SURROUND, a delay time setting of 20 ms is commonly used. Use a different setting if you prefer.

• DOLBY 3 CH LOGIC

By adding the signal for the rear speakers to the signal for the front speakers, the front three channels (front L, front R, and CENTER) provide a much wider, more spacious sound field than possible during ordinary stereo playback.

DOLBY PRO LOGIC SURROUND is equipped with the following 3 positions for the CENTER MODE.
When using DOLBY 3 CH LOGIC, you can select NORMAL or WIDE.

When using center speaker:

- **NORMAL**

Low range frequencies, which have little effect on directionality and positioning, are routed to the left and right front speakers. So you can use relatively small size speakers as the center speakers.

- **WIDE**

If you use large size center speaker, choose this setting. The full frequency range of the center speakers, from low to high, is routed to the center speaker.

When not using a center speaker: DOLBY PRO LOGIC SURROUND

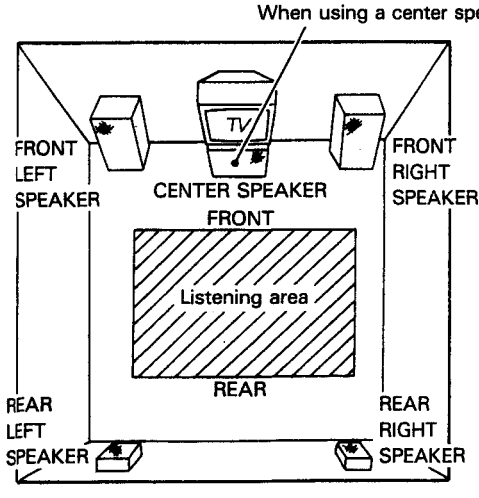
- **PHANTOM**

The signal which would have been sent to the center speaker is divided equally between the left and right front speakers.

SURROUND SPEAKER INSTALLATION EXAMPLE

To get the best effect out of the surround system, place the speakers as shown below.

An example for center speaker location



NOTE:

- *To avoid interference with the picture on a nearby TV set, use magnetically shielded speaker systems. This is particularly important for the center speaker since it is usually located closest to the TV.*
- *Position the left and right channel speakers at equal distances from the TV set and approximately six feet from each other.*
- *Position the center speaker above, below, or behind the TV set. Sound may not appear to coincide with the picture if you position it next to the TV set.*
- *Rear speakers are best positioned slightly above ear level.*

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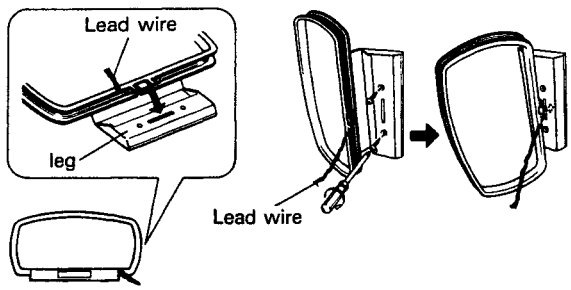
Note:
DOLBY PRO LOGIC SURROUND and DOLBY 3CH LOGIC will not operate correctly if the signal passes through a graphic equalizer. When using DOLBY PRO LOGIC SURROUND or DOLBY 3CH LOGIC, turn off the TAPE 2 switch or set the graphic equalizer for flat response or to its "through" (defeat) (or off) setting, if it has one.

CONNECTION CHART

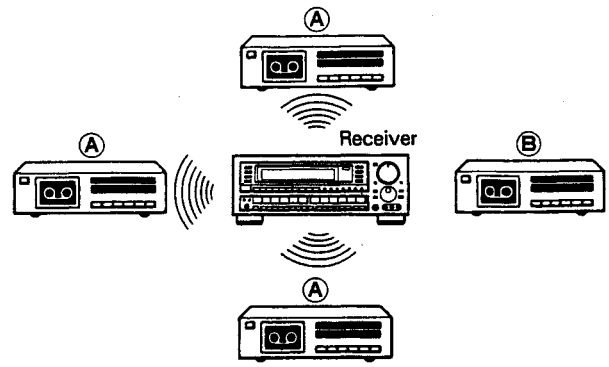
• Illustration shows U.S. and Canadian models.

Setting Up the AM Antenna

- Insert the claw on the bottom of the antenna into the groove in the leg.
- Place the antenna on a level surface and rotate it to locate the orientation that yields the best reception.
- Use the attachment hole in the leg to screw to wall or other location, then insert the claw on the bottom of the antenna into the groove in the leg (fixing the antenna in the direction that gives the best reception).

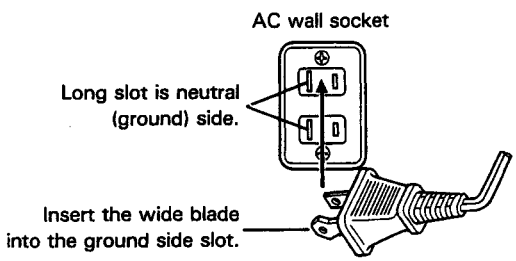


Precaution regarding installation position of cassette deck.
If the cassette deck is installed in the Ⓐ positions shown in the drawing below, it may be adversely affected during playback. If possible, it's better to install it in the Ⓑ position.



CONNECTING THE POWER CORD (For U.S. and Canadian models)

Household electrical outlets are provided with specific polarity, a live side and a neutral (ground) side. This unit utilizes such polarity in order to improve sound quality. As shown in the illustration, be sure to insert the power plug so that its blades match the width of slots in the outlet.



POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

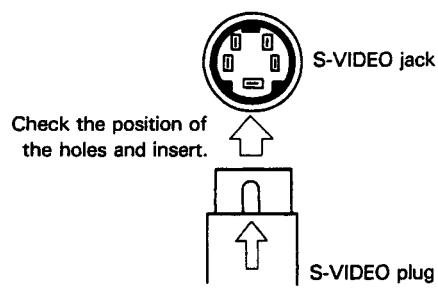
THE S-VIDEO CONNECTORS

When using a VCR 1, VCR 2, VCR 3, LD and TV monitor which has S-VIDEO connectors, they can be connected to the S-VIDEO connectors.
For the operation of components connected to S-VIDEO connectors, refer to the instruction manuals of the corresponding components.

NOTE:

- *In this unit, the S-VIDEO connectors (Y-C separate) and the regular pin jacks are independent, so any signal input through a pin jack must be output from the pin jack, and any signal input through an S-VIDEO connector must be output through the S-VIDEO connector.*
- *The S-VIDEO connector is for video portion only, so be sure to make audio connections also.*

How to use S-VIDEO connectors

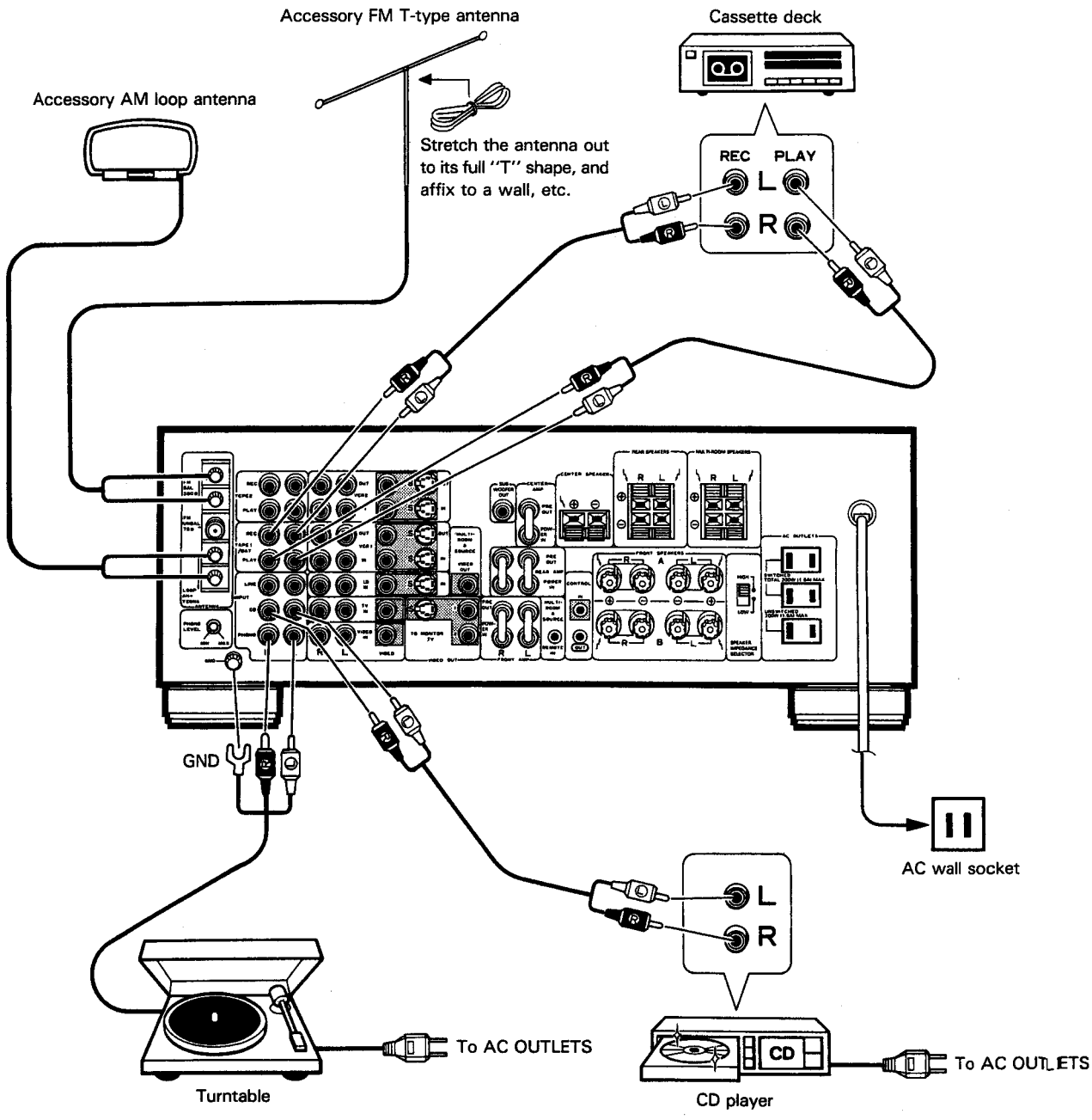


For the method of switching the TV monitor S-VIDEO connector/ VIDEO jack, refer to the TV monitor's instruction manual.

CONNECTION CHART

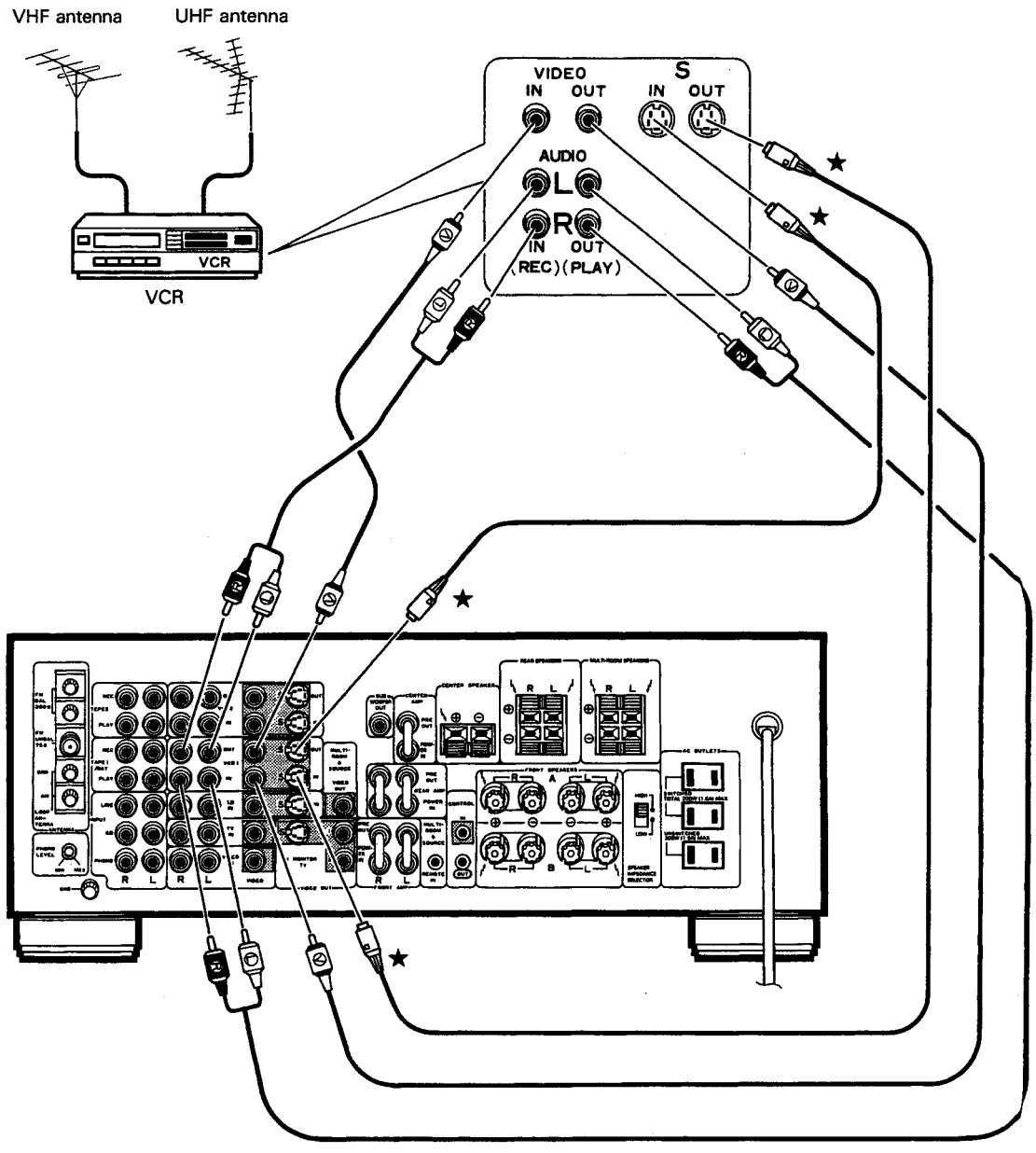
Basic Audio Component Connections

- FM, AM antenna connection
- Turntable
- First cassette deck
- Compact disc player



Basic Video Component Connections (1)

• First VCR



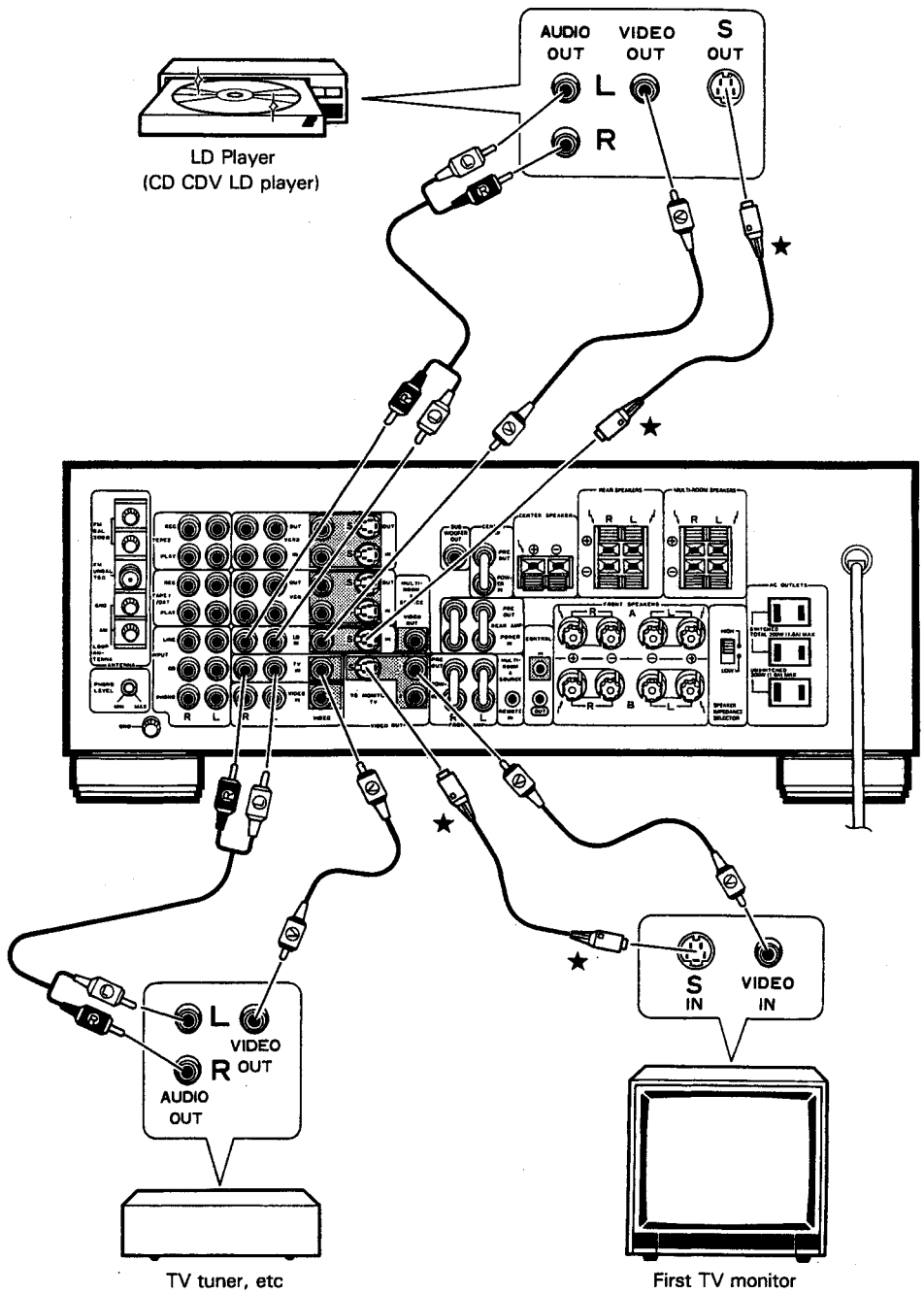
★ S (video) connection. See page 7.

CONNECTION CHART

Basic Video Component Connections (2)

- LaserDisc Player (Compatible LaserDisc player)
- TV tuner
- First TV monitor

★ S (video) connection. See page 7.

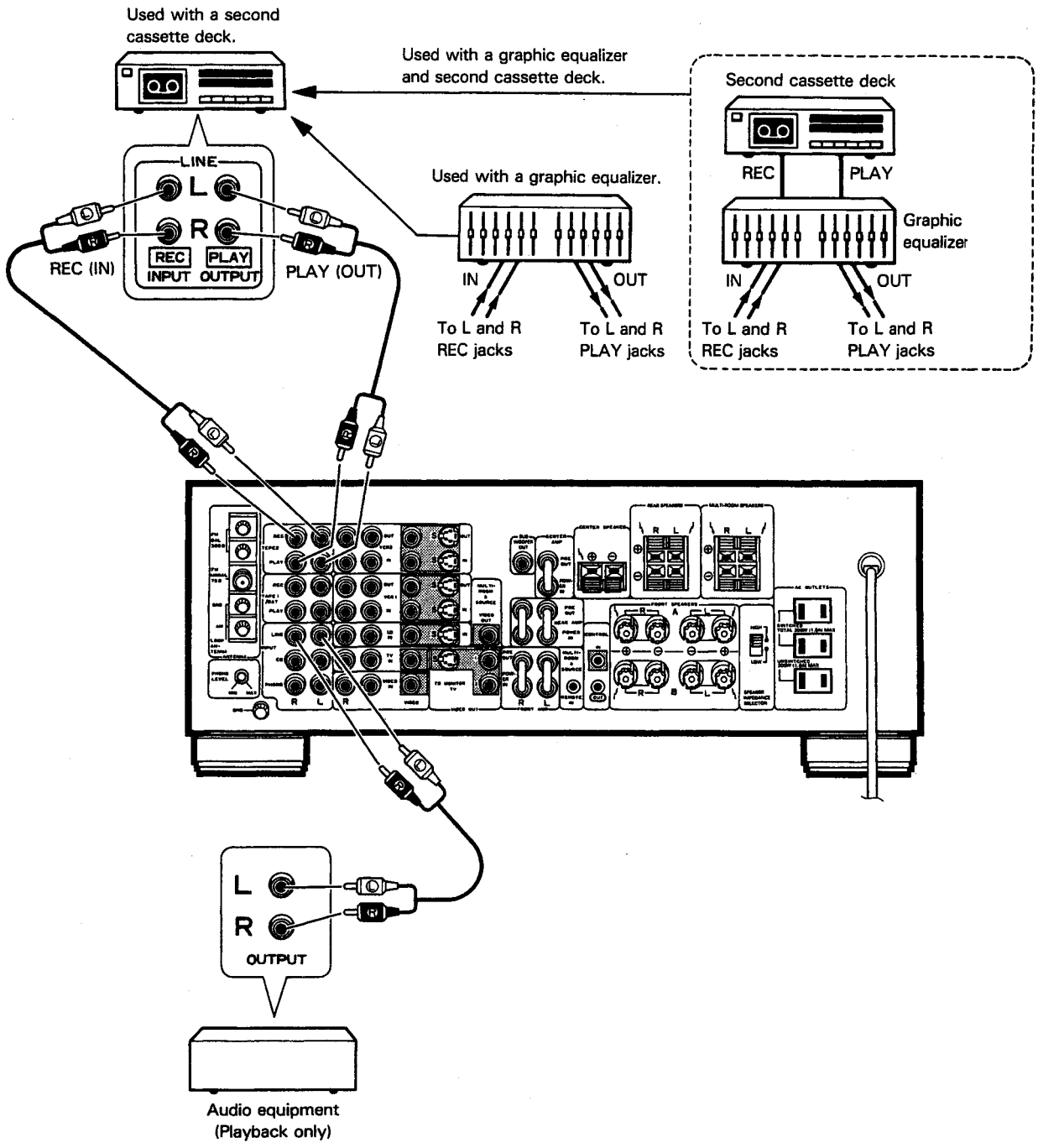


Additional Audio Components

- Second cassette deck (Graphic equalizer)
- Audio equipment (Second CD player, etc.)

NOTE:

- *Dolby Surround will not operate correctly if the signal passes through a graphic equalizer.*
  When using Dolby Surround, turn off the TAPE 2 MONITOR button or set the graphic equalizer for flat response or to its through (defeat) setting.
- *Sound from TAPE 2 cannot be recorded on VCR 1, 2, or TAPE 1.*

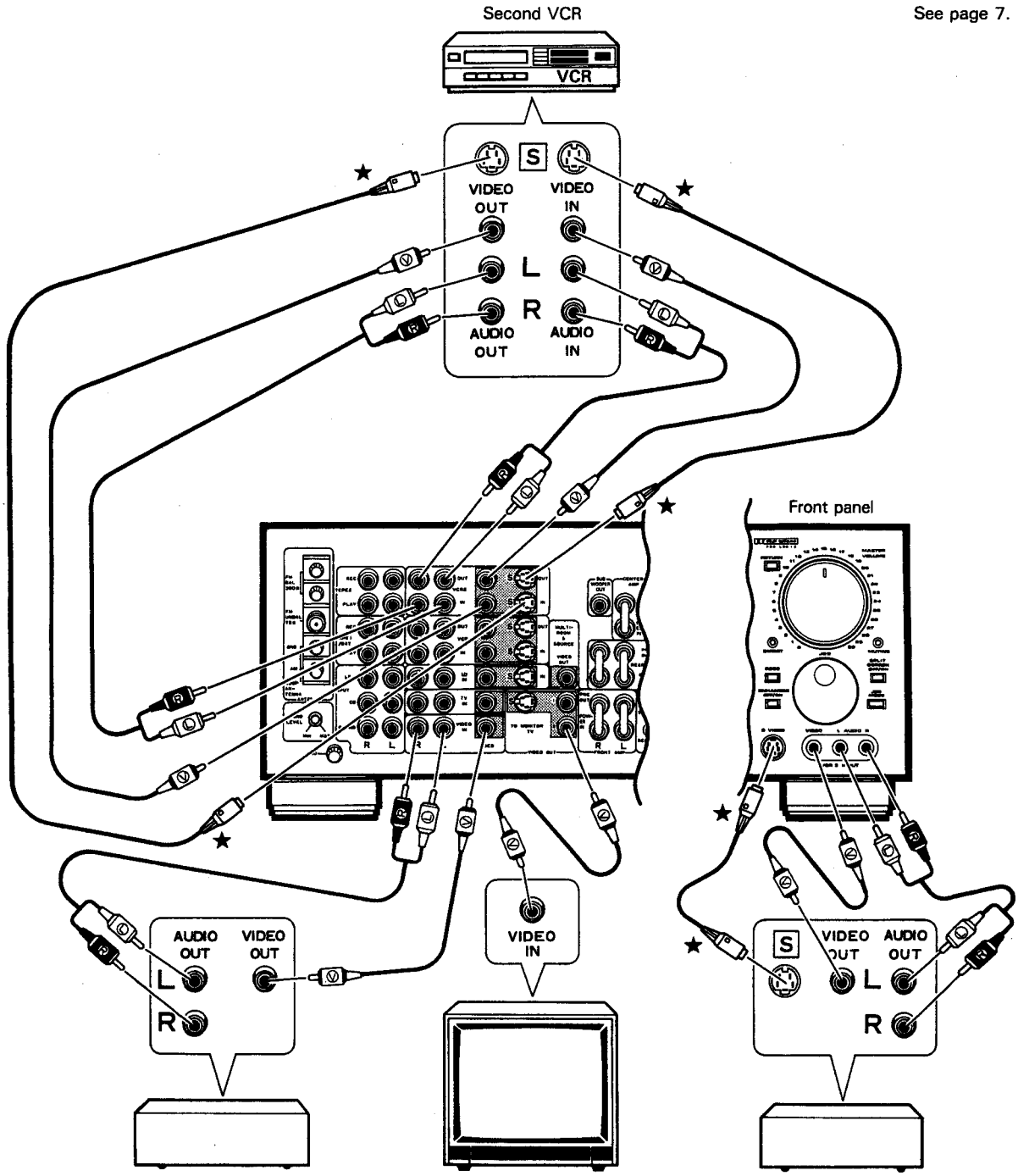


CONNECTION CHART

Additional Video Components

- Second VCR
- Video equipment (Second LD player, etc.)
- Second TV monitor

★ S (video) connection.
See page 7.



Video equipment (Second LD player, etc.)

Second TV monitor

VCR (for playback only), or another component such as a TV camera.

When used with another amplifier (power amplifier, preamplifier)

[FRONT]

(a)
When using the preamplifier of the receiver and using a separate stereo power amplifier to increase power.
(b)
When using the power amplifier of the receiver and using a separate stereo preamplifier.

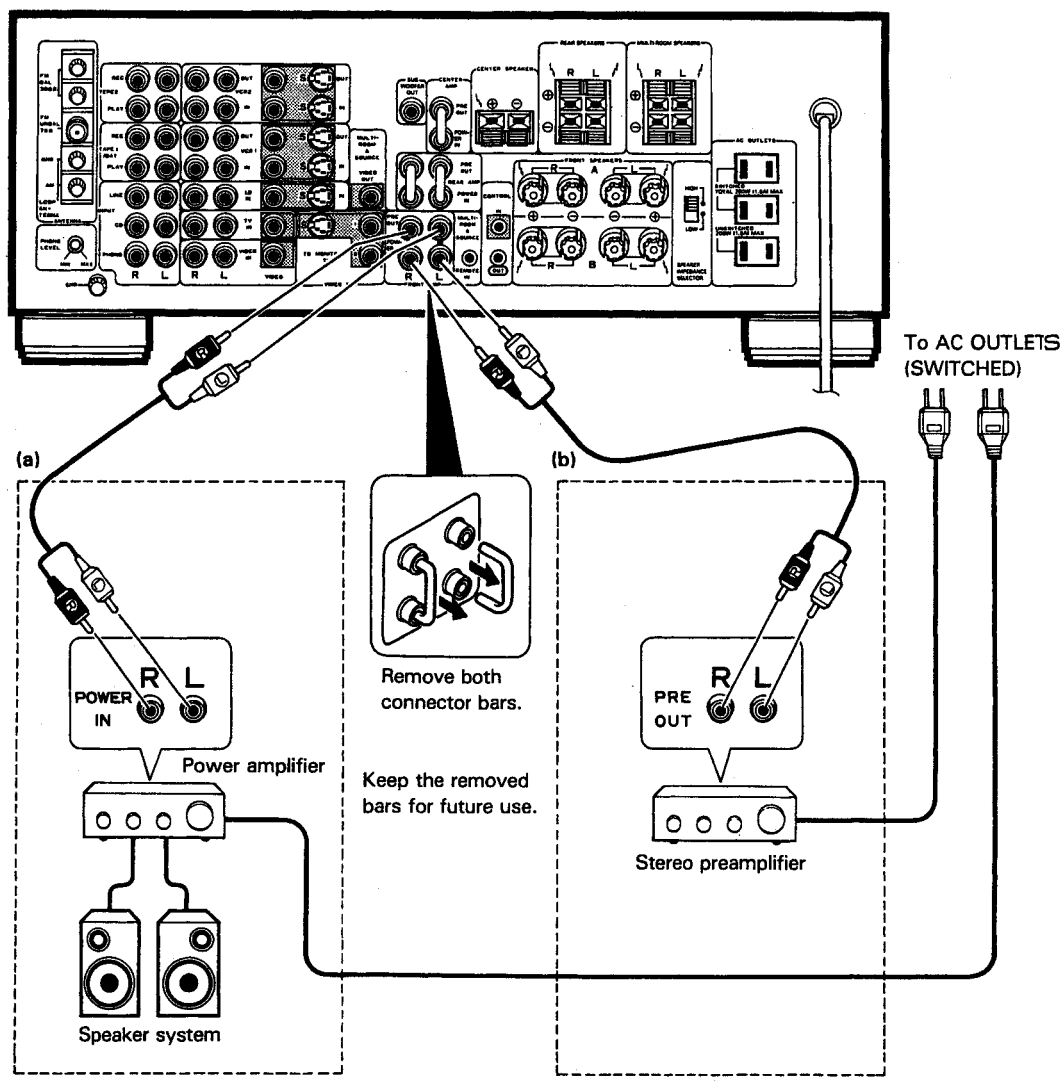
Caution for use of AC OUTLETS:
Components which have electrical power consumption greater than that indicated on the rear panel of this unit cannot be connected. Please take necessary precaution.

When using PRE AMP OUT jack:
Use these jacks when using a separate amplifier as the power source instead of this unit, and listening to speakers which are connected to the separate amplifier.

NOTE:
Sound from the speaker channels (front, center, rear), from which the connector bars have been removed in order to make a connection, cannot be heard if the speakers are connected to the unit.

When using POWER AMP IN jacks:
Use these jacks when this unit is being used as the power amplifier for the surround channels (front, center, rear).
With separate surround processing components, each corresponding channel (front, center, rear) which has a sound output should be connected correspondingly.

NOTE:
When the connector bars are removed to make connections, sound from all channels of separate components connected to this unit's input terminals, as well as broadcasts received by the unit, cannot be heard via speakers connected to the unit.

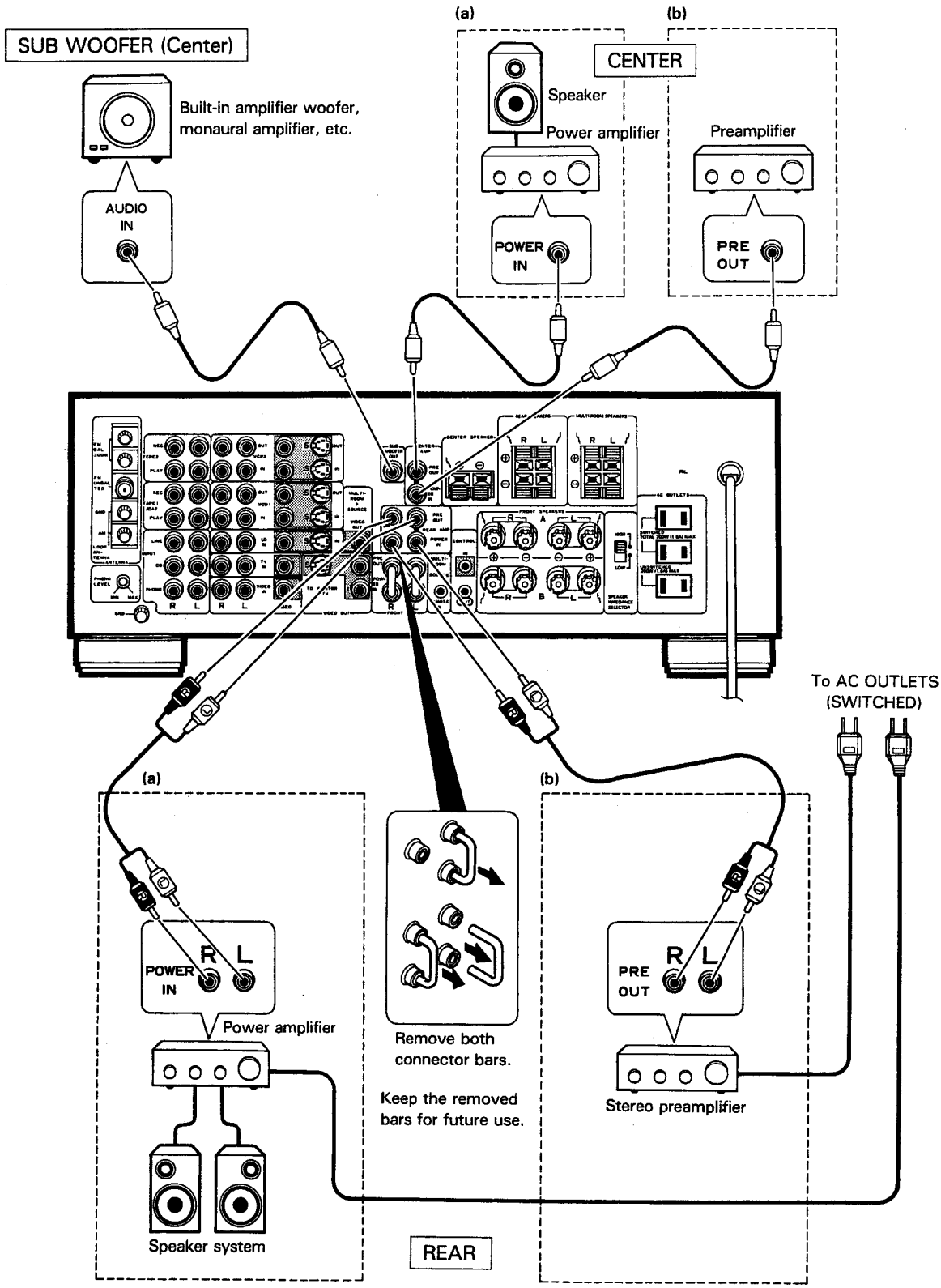


CONNECTION CHART

[REAR and CENTER]

(a)
When using the preamplifier of the receiver and using a separate stereo power amplifier to increase power.

(b)
When using the power amplifier of the receiver and using a separate stereo preamplifier.



Speakers Connection (1)

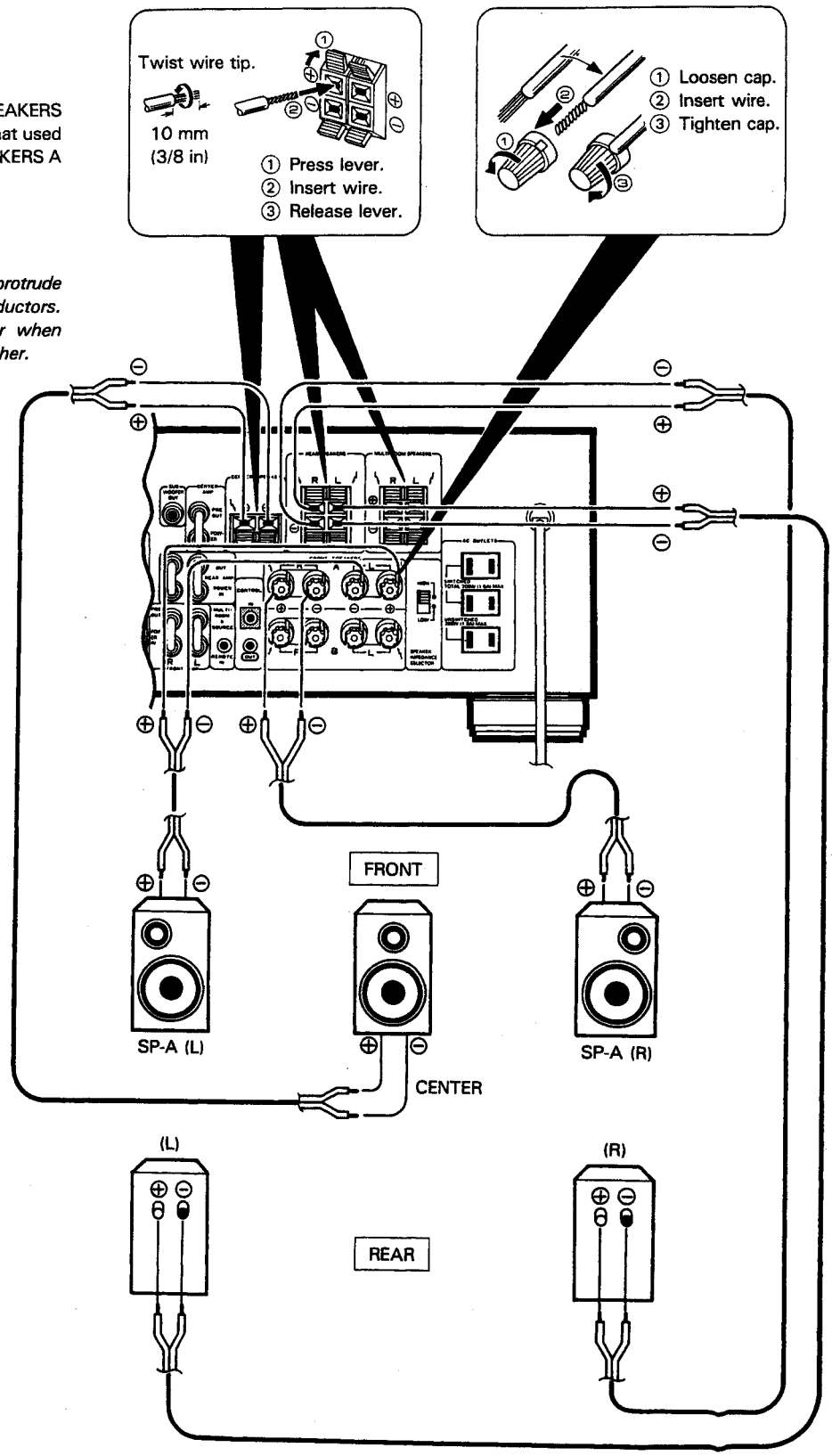
- Front L, R speakers
- Front center speaker
- Rear L, R speakers

When connecting speakers to the FRONT SPEAKERS B terminals, the procedure is the same as that used for connecting speakers to the FRONT SPEAKERS A terminals.

For details concerning speakers impedance.

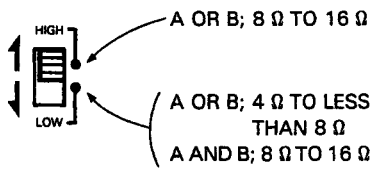
NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.



Front speaker impedance

Set the IMPEDANCE SELECTOR switch to the nominal impedance of your speakers.



NOTE:

- *If you have one pair of speakers only, connect it to front speaker terminals A or B.*
- *Position HIGH: when using one pair of speakers of 8 Ω to 16 Ω.*
- *Position LOW: when using one pair of speakers (4 Ω to 8 Ω) or two pairs of speakers (8 Ω to 16 Ω for each speaker).*

Center speaker impedance

Connect center speaker system with a nominal impedance of 8 Ω.

Rear speaker impedance

Connect rear speaker systems with a nominal impedance of between 8 and 16 Ω.

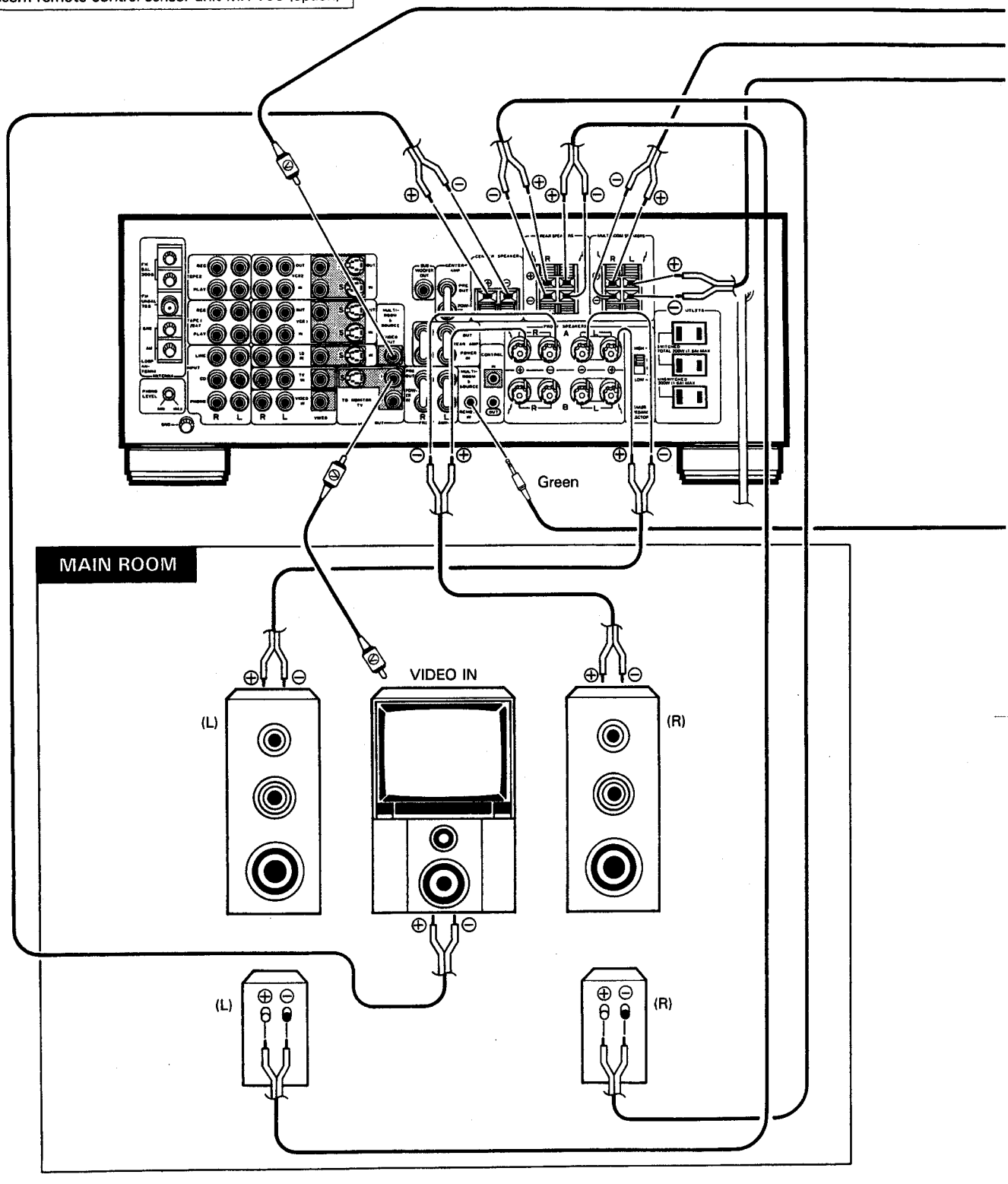
NOTE:

Be sure to observe speaker polarity.

CONNECTION CHART

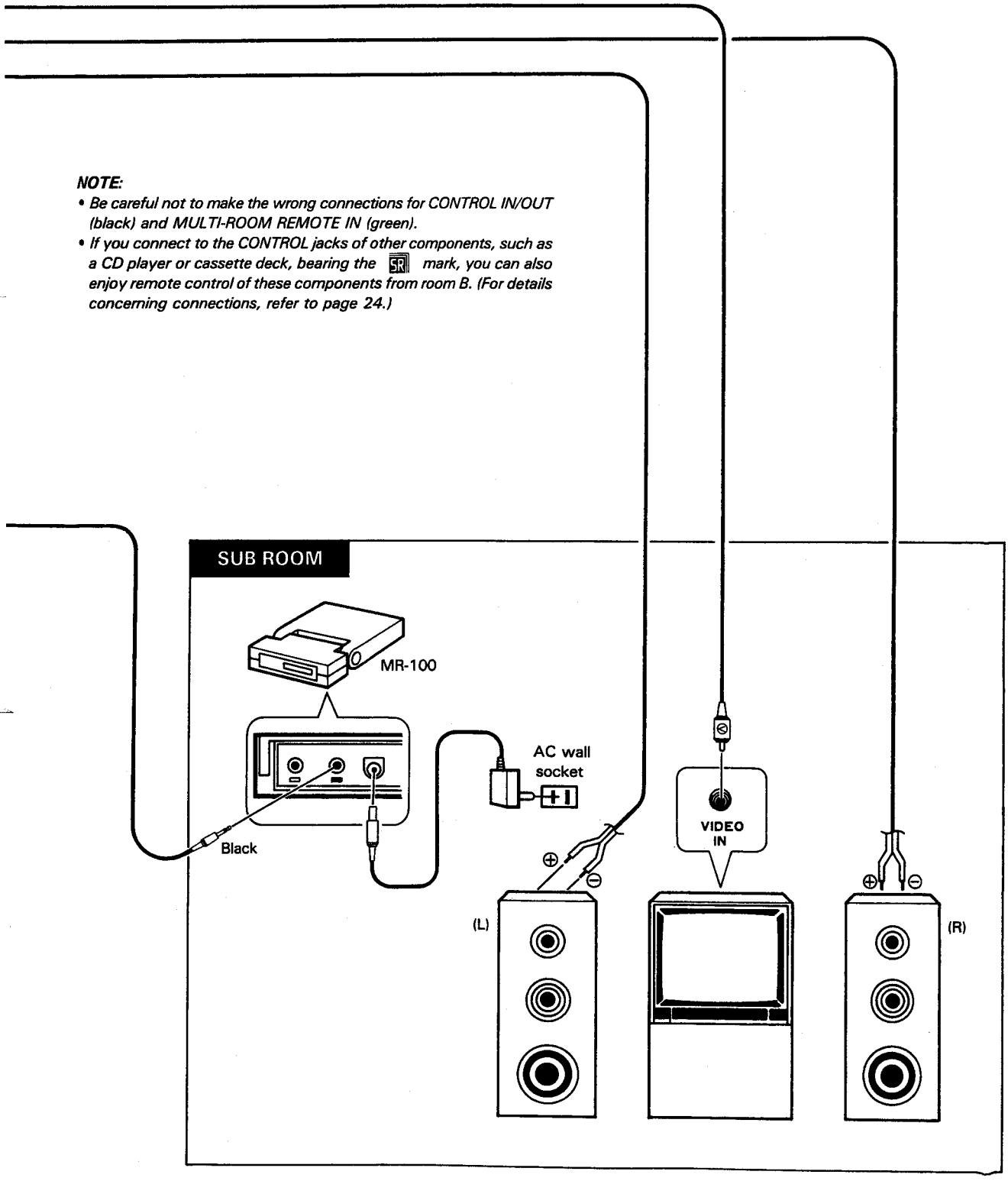
Connecting Multi-Room and Source

- TV Monitor
- Speakers
- Multi-Room remote control sensor unit MR-100 (option)



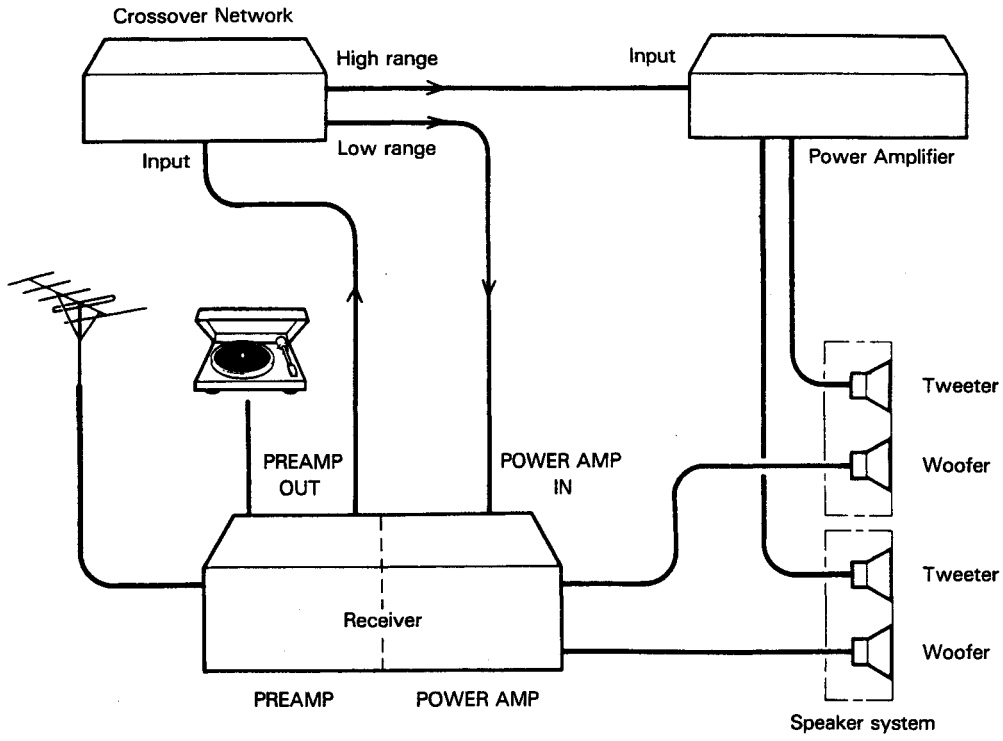
NOTE:

- *Be careful not to make the wrong connections for CONTROL IN/OUT (black) and MULTI-ROOM REMOTE IN (green).*
- *If you connect to the CONTROL jacks of other components, such as a CD player or cassette deck, bearing the SR mark, you can also enjoy remote control of these components from room B. (For details concerning connections, refer to page 24.)*

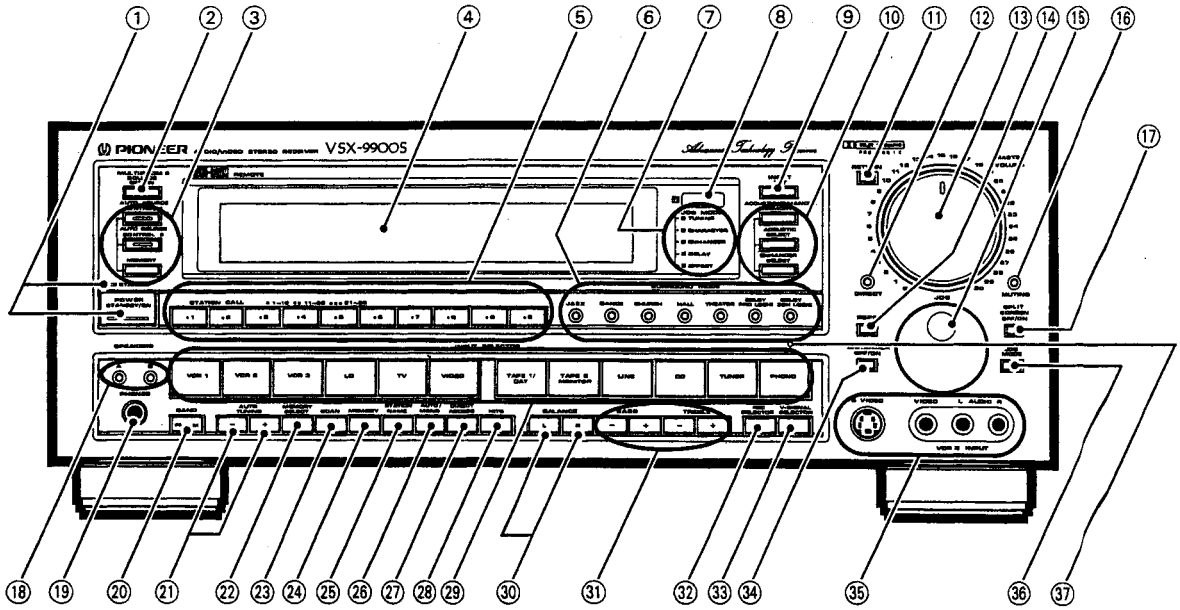


CONNECTION CHART

Application example- MULTI-AMPLIFIER SYSTEM



FRONT PANEL FACILITIES



①POWER STANDBY/ON switch/indicator

This is the switch for electric power.

ON ..... When set to the ON position, power is supplied and the unit becomes operational.

STANDBY .. When set to STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

②MULTI ROOM & SOURCE button (See page 36)

Use in combination with the separately sold MR-100 Multi-Room remote control unit.

When this button is on, the source selected with the INPUT SELECTOR at that time is set to the Sub room function. The selected sub-function's sound is output through SUB ROOM SPEAKERS, and the video signal is output through the MULTI-ROOM & SOURCE VIDEO OUT jack. If you install speaker systems connected to the MULTI-ROOM SPEAKERS terminals in a different room, you can enjoy different sources in two different rooms with a single main unit.

③AUTO SOURCE CONTROL, MEMORY buttons (See page 35)

AUTO SOURCE CONTROL 1, 2:

These buttons are for memorizing and recalling your current settings. Both 1 and 2 can be used to memorize settings. If you connect another component, such as a CD player, to the CONTROL OUT jack on the rear panel, the signals to switch power on and start play are also transmitted.

MEMORY:

Use when memorizing settings to an AUTO SOURCE CONTROL button.

④Display section (see page 22)

⑤STATION CALL (RANDOM 30 CH) buttons

- These buttons are used to preset and recall desired broadcasting stations. You can also preset AUTO/MONO button settings.

Station call operation example:

If you press the [*2] button:

- Once — station 2 is selected.
- Twice — station 12 is selected.
- Three times — station 22 is selected.

NOTE:

Pressing the STATION CALL buttons when a component other than TUNER is selected causes the INPUT SELECTOR setting to switch to TUNER.

- They are also used when performing direct access tuning.

⑥SURROUND MODE buttons (See pages 6, 32)

⑦JOG MODE indicators

The indicator for the mode that can currently be operated by the JOG dial lights. If it is not the mode you want to operate, switch to the desired mode with the JOG MODE button (㊱).

⑧Remote sensor window

⑨INPUT ATT button

Use this when there is distortion due to excessively high input signal level. When this is switched ON, – 10 dB attenuator operates, and the INPUT ATT indicator in the display section lights.

⑩ACOUSTIC/ENHANCER MEMORY, SELECT buttons

ACOUSTIC/ENHANCER MEMORY:

Use to operate acoustic memory and enhancer memory. See page 34.

ACOUSTIC SELECT:

Use this to store desired sound quality settings in memory. Also use it to recall memorized sound quality settings from memory. For further details concerning memory operation, refer to page 34.

ENHANCER SELECT:

Use this to store a desired enhancer effect in memory, and to recall a desired enhancer effect. For further details concerning memory operation, refer to page 34.

When the enhancer has been memorized, then the enhancer will be automatically switched ON when this button is pressed.

⑪ RETURN button
Pressing this button returns the receiver to the following settings, the sound level being controlled by MASTER VOLUME control knob.

- TAPE 2 MONITOR OFF
- SURROUND MODE OFF
- SPEAKERS A ON
- MUTING OFF
- BALANCE CENTER
- INPUT SELECTOR TUNER
- STATION CALL 1 CH*

* When a station is not memorized in 1 CH, station search will automatically proceed from the frequency displayed.

⑫ DIRECT button
Press this to listen to source sound without passing the audio signal through sound quality and balance adjusting circuitry.
The surround mode, and rear and center speakers are automatically switched off.

⑬ MASTER VOLUME control
Use to adjust the sound volume from the front, center and rear speakers. When you adjust volume by remote control, the indicator on the knob flashes.
When the MULTI ROOM & SOURCE switch is ON, volume level in sub room cannot be adjusted with this knob. To adjust sub room volume, point the remote control at the MR-100 in the sub room and operate.

⑭ DSSS (Digital Simulated Stereo System) button
Operate this when inputting a monaural signal to enjoy a simulated stereo sound. You can use it when a monaural signal is input into both the left and right channels or when a monaural signal is input into only one of the channels.

⑮ JOG dial
This lets you control the following five functions.
(1) Tuner frequency (manual tuning).
(2) Selection of letters for station naming.
(3) Video enhancer effect level adjustment.
(4) Surround's delay time selection.
(5) Surround's total effect level adjustment.
You can select which function you want to control with the JOG MODE button ㊱, but the mode automatically switches when a function changes. For example, if you press the STATION NAME button, the JOG MODE automatically switches to the CHARACTER mode.

⑯ MUTING button
Press to temporarily cut off the sound volume. When pressed again, the sound will return to its previous level.

⑰ SPLIT SCREEN OFF/ON button
If you turn the ENHANCER OFF/ON button ON to add the video enhancer effect, and then turn this button on, the right side of the picture will have the enhancer effect added, and the left side will be without the enhancer effect. The signal that has passed through the enhancer is output through the TO MONITOR TV jacks and VCR OUT jacks.
A split screen picture is output from the TO MONITOR TV jacks. However, S jack output is not affected by enhancer or split screen.

⑱ SPEAKERS A, B buttons
These are ON/OFF buttons for the speaker systems. When switched ON, SPEAKERS indicators (A, B) in the display section light.

⑲ PHONES jack
Connect the plug on your headphones to this jack. To hear only through the headphones, set all SPEAKERS A and B buttons to the OFF position.

NOTE:
There are no ON/OFF switches for the rear and center speakers, so when you want to listen only on headphones, switch surround OFF. If you want to listen with surround ON, reduce rear and center volume levels using the remote control.

⑳ BAND button (FM/AM)
Use this to switch between FM and AM frequency band reception.

㉑ AUTO TUNING buttons (Down (–), Up (+))
+: Performs tuning in ascending frequency order.
–: Performs tuning in descending frequency order.

㉒ CUSTOM MEMORY SELECT button (See page 27)
Recall a genre name with this button.

㉓ SCAN button (See page 27)
Operates when the INPUT SELECTOR is set to TUNER. Station frequencies assigned to the STATION CALL buttons are tuned in, one after another, beginning with the current station no., for approximately 5 seconds each. Press the button again and reception of the station presently being received will continue. Station frequencies not assigned station numbers in the memory are skipped.
When you have selected a CUSTOM MEMORY genre, memory scan is performed on the stations in that genre.

㉔ MEMORY button
Pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode (see page 27).
This button is also used to input station names (see page 28), and custom memory operation (see page 27).

㉕ STATION NAME button
This button is used when inputting station names. (See page 28.)

㉖ AUTO/MONO button
Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator in the display section is lit.

Auto stereo mode:
Normally, leave in this mode for reception. When a stereo broadcast is received, it will be automatically reproduced in stereo.
During stereo broadcast reception, the STEREO indicator in the display section lights.

Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise; however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This button has no effect on reception of AM broadcasts.

㉗ DIRECT ACCESS button (See page 26)
When this button is pressed, the STATION CALL buttons function as 10-key number buttons for direct input of the desired reception frequency.
When frequencies that cannot be received are entered, the entered frequency value flashes, before reception of the previous frequency resumes.

㉘ HITS (Hyper Intelligent Tuning System) button (See page 29)
- If the HITS button is pressed at the currently displayed station frequency, the receiver searches up and down the frequency for the next station and stops at the first one it finds.
- If the HITS button is pressed during STATION NAME input (see page 28), the receiver performs a memory search in order of ascending station number for memorized stations whose names begin with the same letter as the station just input.
- If the HITS button is pressed during input of numbers for DIRECT ACCESS tuning, the receiver sets the remaining digits, which have not yet been input, to "0", searches for the corresponding frequencies, and stops on the first station it finds.

NOTE:

- *The system searches for stations within successive 1 MHz ranges for FM and 100 kHz ranges for AM. During DIRECT ACCESS tuning, it searches up and down for a station until it reaches the edges of the band. If no receivable station is found within the band range, the receiver returns to the state it was in before the HITS button was pressed.*
- *If the upper (or lower) frequency limit of the receiver is encountered during HITS operation, the receiver stops searching in that direction but continues to search in the other.*

㉙ INPUT SELECTOR buttons

• Video input selector

VCR 1: Press when performing playback on a first VCR unit.
VCR 2: Press when performing playback on a second VCR unit.
VCR 3: Press when performing playback on a third VCR unit.
LD: Press when performing playback on an LD player.
TV: Press to watch TV broadcasts from the TV tuner connected to the rear panel TV IN jacks.
VIDEO: Press when performing playback on a VCR connected to VIDEO IN jack.

• Audio input selector

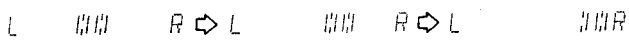
TAPE 1/DAT: Press when performing playback on a DAT or cassette deck.
TAPE 2 MONITOR: Press when performing playback on a second cassette deck.
LINE: Press when performing playback on an audio component connected to the LINE IN jacks.
CD: Press when playing compact discs on a CD player.
TUNER: Press when listening to radio broadcasts.
PHONO: Press when playing records on a turntable.

NOTE:

Because of the digital processing performed by this unit's Digital Signal Processor, high level input may result in distortion. This is particularly true when using a turntable with a high output cartridge. In this case, adjust the volume level with the PHONO LEVEL control on the rear panel so that it is the same as other inputs. If there is distortion due to excessively high input level from another component, use the INPUT ATT button to adjust input level.

㉚ BALANCE buttons

Use to adjust the sound volume balance between left and right speakers.
L: Press to decrease the sound on the right side.
R: Press to decrease the sound on the left side.
Press L and R together to bring the volume balance back to standard (Left = Right).
Example: When pressing and holding the "R" button.



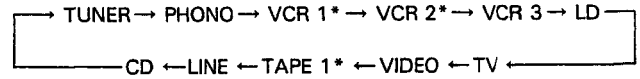
㉛ Tone control buttons

BASS:
Use to adjust the low-frequency level. Press the + button to increase low-frequency level, and the − button to decrease it.
When both sides (+, −) of the BASS control are pressed simultaneously, the base response will be set to the flat (normal) condition. "BASS C" is shown in the display section.

TREBLE:
Use to adjust the high-frequency level. Press the + button to increase high-frequency level, and the − button to decrease it.
When both sides (+, −) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition. "TREBLE C" is shown in the display section.
Adjust TONE CONTROL settings are indicated in the display section for several seconds.

㉜ REC SELECTOR button

You can select the component to be recorded from, on TAPE 1, VCR 1, VCR 2, without using the INPUT SELECTOR.
Each time you press the REC SELECTOR button, the components change in the following order.

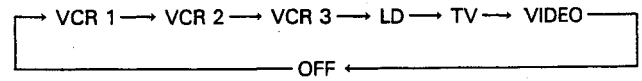


When the REC SELECTOR has been through all the components once, REC SELECTOR switches off.

Recording between units marked with the "*" is possible in the following relationships.
From TAPE 1 on VCR 1 and 2, from VCR 1 on VCR 2 and TAPE 1, and from VCR 2 on VCR 1 and TAPE 1.
Do not select the component you wish to record on (for example, VCR 1), with the REC SELECTOR.

㉝ V (Video) SIGNAL SELECTOR button

Press this to switch VIDEO OUT (TO MONITOR TV) and VCR VIDEO OUT in the following sequence: (Audio does not change)



Indications are only displayed during operation.
There is no picture when it is OFF.

㉞ ENHANCER OFF/ON button (See page 34)

Use to switch the video enhancer effect ON/OFF during playback or recording of a video.
When it is switched ON, adjust the degree of effect with the JOG dial ⑮.
If you turn ON the SPLIT SCREEN OFF/ON button ⑰, the right half of the screen shows a picture with the enhancer ON, and the left half of the screen shows a picture with the enhancer OFF.
The enhancer has no effect on S jack and MULTI-ROOM & SOURCE VIDEO OUT jack video signals.

㉟ VCR 3 INPUT jacks

Video components such as a VCR or TV camera, etc. can be connected here.

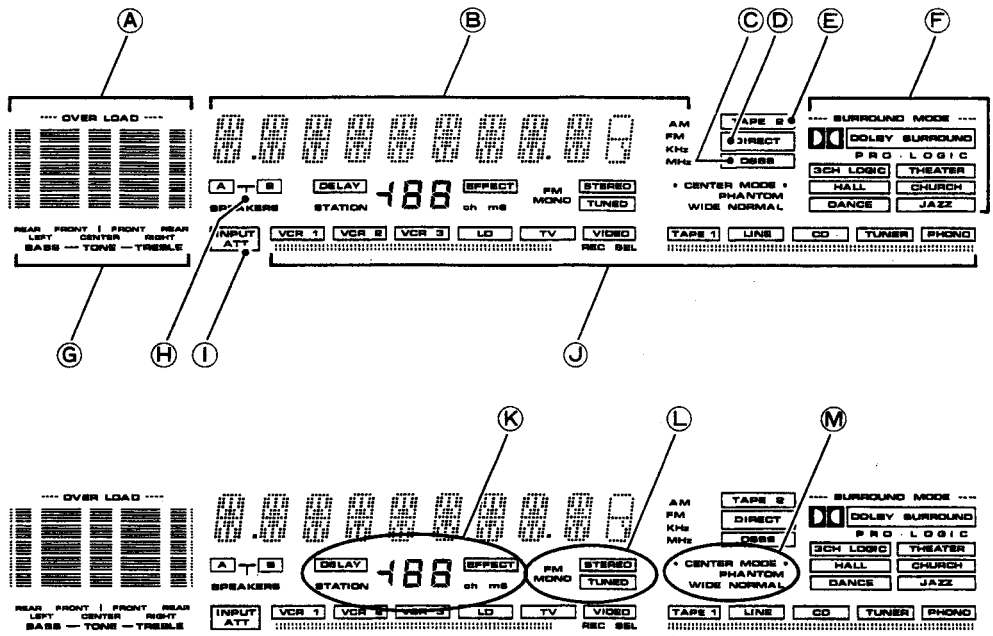
㊱ JOG MODE button

Use this to select the mode you want to control with the JOG dial ⑮.
The selected mode is indicated by the JOG MODE indicators ⑦.

㊲ Reset button

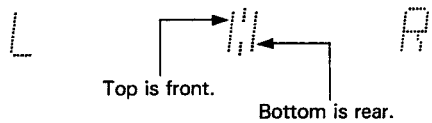
Use this when normal operation becomes impossible because of external influences such as static electricity or lightning, or when operation is impossible even when operation buttons are pressed. Press this button to return to normal operating conditions.
If you press this button when the power is ON, the unit switches to POWER STANDBY, and the entire contents of the memory are erased.

DISPLAY SECTION



Ⓐ Level/Tone meters
The level meter is usually displayed. If the input level is too high, the display switches, and the OVER LOAD indicator lights.
During Tone control operation, the display switches accordingly.

Ⓑ Character display/Balance meter
- Character display indicates such information as function, received frequency, station name, acoustic memory, and enhancer memory, etc.
- Front and rear left/right balance is indicated. This is displayed during balance adjustment, after which indications return to character display.



Ⓒ DSSS indicator
Lights when the DSSS button is ON.

Ⓓ DIRECT indicator
This lights when the Direct mode is switched ON.

Ⓔ TAPE 2 indicator
Lights when the TAPE 2 MONITOR button is in the ON position.

Ⓕ SURROUND MODE indicators
These display the selected surround mode. When all indicators are out, surround is OFF.

Ⓖ Meter mode indicator
Indicates the display modes mentioned in Ⓐ.

Ⓗ SPEAKERS indicators
Shows which speaker system (or systems) are switched ON.

Ⓘ INPUT ATT indicator
This lights when the INPUT ATT button is switched ON.

Ⓙ REC selector indicators
- The recording source selected with the REC SELECTOR button is usually displayed.

Ⓚ Station call no./Delay time/Surround effect/Enhancer level display
- Usually, the STATION indicator and "ch" light to display the station call number.
- When adjusting surround delay time, the DELAY indicator and ms light to display delay time.
- When adjusting surround effect level, the EFFECT indicator lights, and effect level from 5 to 100 is displayed.
- When adjusting enhancer level, enhancer level from −50 to 50 is displayed.

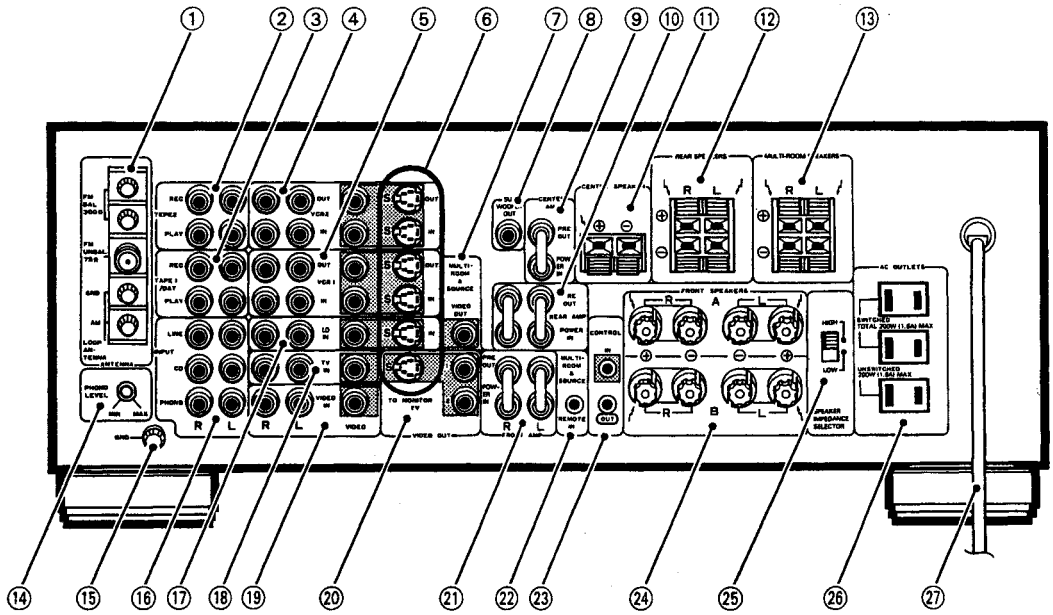
Ⓛ Tuning indicators
FM MONO: This lights when you select MONO with the AUTO/MONO button. When this indicator is lit, reception of FM stereo broadcasts is also monaural.
STEREO: When the FM MONO indicator is out (auto stereo mode), this lights when receiving an FM stereo broadcast.
TUNED: Lights when a station is tuned.

Ⓜ CENTER MODE indicators
These display the center mode (NORMAL, WIDE, PHANTOM) during THEATER, DOLBY PRO LOGIC SURROUND or DOLBY 3CH LOGIC operation.

Warning indication:
Display section indicators will flash to indicate that operation is not possible in a particular situation when you press a button. With Multi-Room & Source, the button itself flashes.

REAR PANEL FACILITIES

• Illustration shows U.S. and Canadian models.



① FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

Attach the accessory AM Loop and FM T-type antennas, here.

• For details regarding antenna connection, see the section "HINTS FOR BETTER RECEPTION" on page 47.

② TAPE 2 jacks

Connect a second cassette deck to these jacks.

Connection for Recording

The tape recording jack (TAPE REC) on the cassette deck should be connected to the REC side of the TAPE 2 jack on the receiver with a pin plug connecting cord.

Connection for Playback

Connect the TAPE PLAY jack on the cassette deck to the PLAY side of the TAPE 2 jack on the receiver with a pin plug connecting cord.

③ TAPE 1/DAT jacks

Connect a DAT (digital audio tape deck) or your primary analog cassette deck to these jacks.

Connection for Recording

The tape recording jack (TAPE REC) on the cassette deck or DAT should be connected to the REC side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

Audio recording from TAPE 2 is not possible.

Connection for Playback

Connect the TAPE PLAY jack on the cassette deck or DAT to the PLAY side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

④ VCR 2 jacks

[VIDEO IN]

Connect to the VCR 2 VIDEO OUTPUT jacks.

[AUDIO IN (L, R)]

Connect to the VCR 2 AUDIO OUTPUT jacks.

[VIDEO OUT]

Connect to the VCR 2 VIDEO INPUT jacks.

[AUDIO OUT (L, R)]

Connect to the VCR 2 AUDIO INPUT jacks.

⑤ VCR 1 jacks

[VIDEO IN]

Connect to the VCR 1 VIDEO OUTPUT jacks.

[AUDIO IN (L, R)]

Connect to the VCR 1 AUDIO OUTPUT jacks.

[VIDEO OUT]

Connect to the VCR 1 VIDEO INPUT jacks.

[AUDIO OUT (L, R)]

Connect to the VCR 1 AUDIO INPUT jacks.

⑥ S (connector) video jacks

When used in conjunction with a VCR, Video disc player (LaserDisc player) or TV monitor equipped with S video jacks, connect to these jacks. See page 7.

⑦ MULTI-ROOM & SOURCE VIDEO OUT jack

When using the Multi-Room & Source function, use this to connect the TV monitor for use in the Sub room.

⑧ SUB WOOFER OUT jack

If you want to boost the low frequencies, or you want to use the unit in a 3D system, connect to a sub woofer power amplifier.

⑨ CENTER AMP jacks

[POWER IN]
When a separate preamplifier is used for surround center speaker and this unit is used as a power amplifier, connect the preamplifier to this jack.

[PRE-OUT]
When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

⑩ REAR AMP jacks

[PRE OUT]
When a separate power amplifier is used to drive the rear speakers, connect the power amplifier to these jacks.

[POWER IN]
When a separate preamplifier is used for rear speakers and this unit is used as a power amplifier, connect the preamplifier to these jacks.

⑪ CENTER SPEAKERS terminals

Connecting the surround center channel speaker system.
Speaker impedance:
Use a center speaker with a nominal impedance of 8 Ω.

NOTE:
Do not allow any of the code's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdown may occur when conductors come into contact with each other.

⑫ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.
Speaker impedance
Connect speaker systems with a nominal impedance of between 8 and 16 Ω.

NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

⑬ MULTI-ROOM SPEAKERS terminals

Connect to the Multi-room speakers.
Speaker impedance
Connect speaker systems with a nominal impedance of between 8 and 16 Ω.

NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

⑭ PHONO LEVEL control

Use to adjust turntable input level. If distortion occurs when you are using a high-output cartridge, adjust the volume level until it's the same as another input, such as TUNER.

⑮ GND terminal

Connect the turntable ground lead to this terminal.

⑯ Audio INPUT jacks

PHONO..... Connect to turntable.
CD..... Connect to compact disc player.
LINE..... Connect to the audio output jacks of an additional audio component.

⑰ LD jacks (input)

[VIDEO IN]
When watching the video image from an LD player or a VCR used for playback, connect its VIDEO OUTPUT jack here.

[AUDIO IN (L, R)]
When playing back the audio channel from an LD player (CD CDV LD player) or a VCR for playback, connect its AUDIO OUTPUT jacks here.

⑱ TV jacks (input)

Use these jacks if you wish to connect a TV tuner with both video and audio outputs.
[VIDEO IN]
Connect the TV tuner's VIDEO OUTPUT to this jack.
[AUDIO IN (L, R)]
Connect the TV tuner's AUDIO OUTPUT to these jacks.

⑲ VIDEO jacks (input)

Connect the output jacks of video components.
For example, connect a playback-only VCR or a video camera.

⑳ VIDEO OUT TO MONITOR TV jacks (output)

Use to connect a TV monitor or a TV set with video input terminals for watching program materials from a VCR or Video disc player (LD player) connected to this unit.

㉑ FRONT AMP jacks

[PRE-OUT]
When a separate power amplifier is used to drive the front speakers, connect the power amplifier to these jacks.

[POWER IN]
When a separate preamplifier is connected and this unit is used as power amplifier, connect the preamplifier to these jacks.

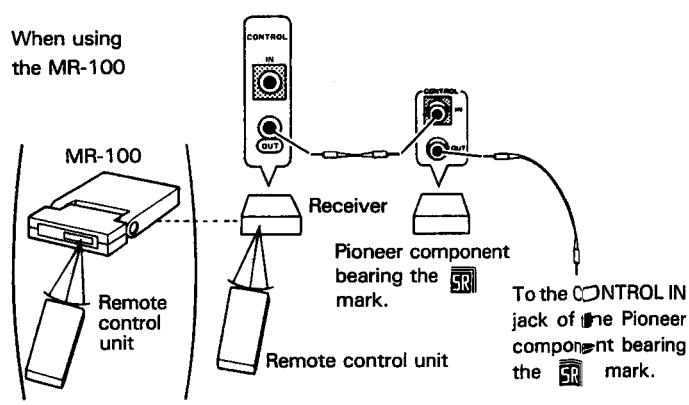
㉒ MULTI-ROOM & SOURCE REMOTE IN jack

When using the MULTI-ROOM & SOURCE function, connect to the separately sold MR-100 Multi-Room remote control unit. (See pages 16, 17)

㉓ CONTROL IN, OUT jacks

Used for system control with other Pioneer components bearing the SR mark.
IN: For connection from the CONTROL OUT jack of another component (TV, etc.).
OUT: For connection to the CONTROL IN jack of another component.

NOTE:
The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.



㉔ FRONT SPEAKERS terminals

A: Connect to the first set of speakers.
B: Connect to a second set of speakers.

Speaker impedance:
Refer to ㉕ SPEAKER IMPEDANCE SELECTOR switch.

NOTE:
Do not allow any of the code's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdown may occur when conductors come into contact with each other.

㉕ SPEAKER IMPEDANCE SELECTOR switch

Set this switch to match the impedance of your front speakers.

[I] When using one pair of speakers:

Impedance of a speaker	Selector position
8 Ω to less than 16 Ω	HIGH
4 Ω to less than 8 Ω	LOW

[II] When using two pairs of speakers:
Select LOW as the selector switch position and use speakers with a nominal impedance of between 8 Ω and 16 Ω.

NOTE:
Turn off the receiver's power before changing the impedance selector switch setting.

㉖ AC OUTLETS

[U.S. and Canadian models]

SWITCHED TOTAL 200 W (1.6 A) MAX
Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 200 W (1.6 A).

UNSWITCHED 200 W (1.6 A) MAX
Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 200 W (1.6 A).

[Multivoltage model]

SWITCHED TOTAL 100 W MAX
Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

UNSWITCHED 100 W MAX
Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.

NOTE:
Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk.
This can cause the receiver to malfunction.

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.

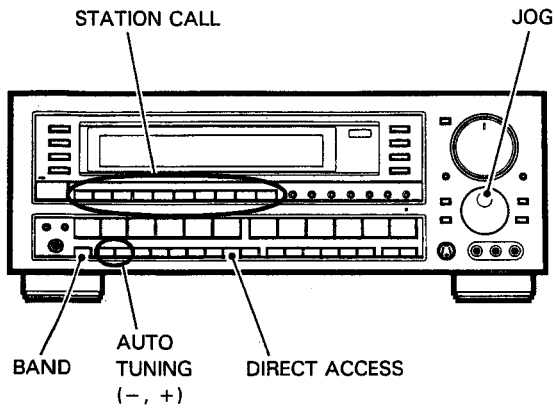
㉗ AC Power cord

Connect to AC wall socket.

NOTE:
This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.

TUNER

Press the POWER switch to the ON position.
Select TUNER with the INPUT SELECTOR.
Be sure to turn the TAPE 2 MONITOR button OFF when listening to AM or FM broadcasts.



MANUAL TUNING

1. **Use the BAND button to select either FM or AM.**
2. **Select your desired frequency with the JOG dial.**
   - Turn the JOG dial clockwise and the frequency increases; turn it counter clockwise and the frequency decreases.
   - When a station is received, the TUNED indicator lights.

AUTO TUNING

1. **Use the BAND button to select either FM or AM.**
2. **Press the "+" or "−" button of the AUTO TUNING buttons.**
   - Pressing "+" causes scanning to take place in the direction of increasing frequency. Pressing "−" causes scanning to take place in the direction of decreasing frequency.
   - When a station is received, scanning will stop (the TUNED indicator lights). If you wish to receive a different station, press the AUTO TUNING button ("+" or "−") again.

DIRECT ACCESS TUNING

When you know the frequency of the desired station, the frequency can be input directly using the STATION CALL (number) buttons in the following way:

1. **Use the BAND button to choose either FM or AM.**
2. **Press the DIRECT ACCESS button.**
3. **Input the desired station frequency using the STATION CALL buttons.**

To cancel frequency input

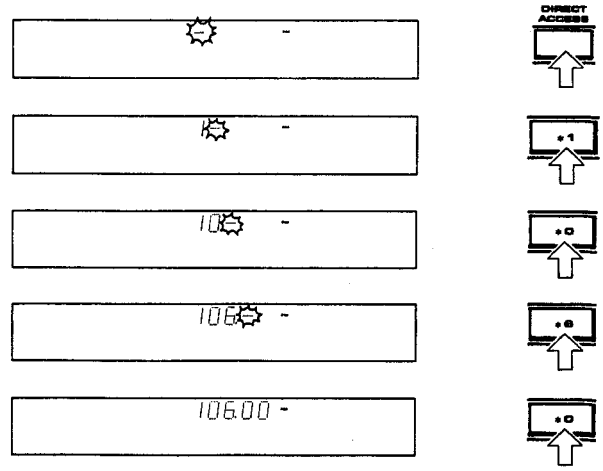
If none of the STATION CALL buttons ([*1] – [*0] are pressed for approximately five seconds, the unit returns to the state it was in before the DIRECT ACCESS button was pressed.

FM auto stereo reception and monaural reception

Each time you press the AUTO/MONO button, the FM MONO indicator in the display section lights or goes out.

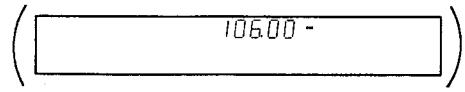
- If an FM stereo broadcast is received when the FM MONO indicator is out, the STEREO indicator lights, and sound is in stereo.
- If an FM stereo broadcast is received when the FM MONO indicator is lit, the sound will be monaural.
  If there is interference during STEREO mode reception, switch to FM MONO. The sound will become monaural but interference will be reduced.

Direct access tuning example: To receive FM 106.00 MHz

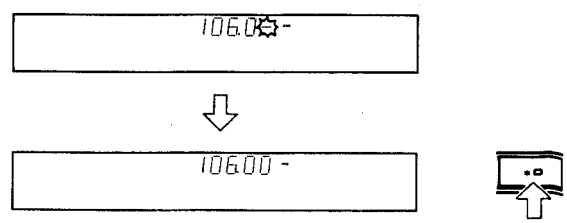


FOR MULTIVOLTAGE MODEL

- When the CHANNEL STEP switch is set to FM 100 kHz step, the tuning operation is completed and reception begins.



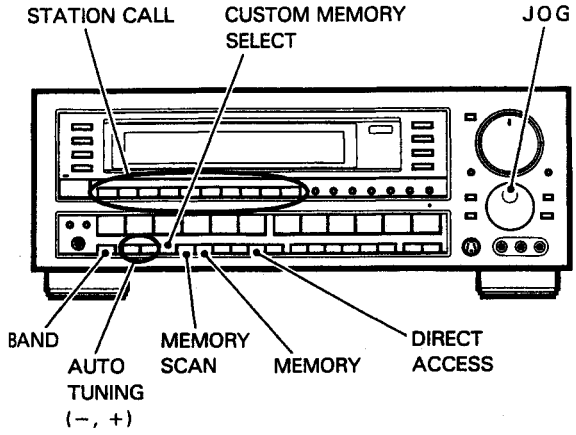
When the CHANNEL STEP switch is set to FM 50 kHz step:



PRESET TUNING

Press the POWER switch to the ON position.
Select TUNER with the INPUT SELECTOR.
Be sure to turn the TAPE 2 MONITOR button OFF when listening to AM or FM broadcasts.
At the same time, you can also memorize stations under the following five different genre names according to the material played on the station. (Custom memory)
The five following genres are available.

ROCK
POP
JAZZ
NEWS
PARTY



Frequency Presetting and Custom Memory selection

[Frequency Presetting]

1. **Tune into the desired station.**
   - Refer to "MANUAL TUNING", "AUTO TUNING", or "DIRECT TUNING" for tuning procedure.
2. **Press the MEMORY button.**
3. **Press the STATION CALL button into which you wish to preset the station.**
   - Use the STATION CALL buttons ([*1] – [*0]) to select a STATION CH. One press selects the 1 – 10 range, two presses 11 – 20 and three presses 21 – 30.

   (Example) If you press button [*3] :
   Once – STATION 3
   Twice – STATION 13
   Three times – STATION 23
   - When "COMPLETE" is displayed, memorization is completed.

[Custom Memory selection]

4. **Select the same number as the STATION CH selected in operation 3. with the STATION CALL buttons.**
5. **Press the MEMORY button.**
6. **Display the desired genre with the CUSTOM MEMORY SELECT button.**
   - The custom memory name is displayed in the display.
   - When "COMPLETE" is displayed, memorization is completed.
7. **Repeat steps 1 to 6 to preset additional stations.**
   A total of 30 AM and FM stations may be preset. If you preset a STATION CALL button into which a station has already been memorized, the former station information will be erased and the new station will be memorized in its place.

To program Custom Memory with STATION CALL buttons into which stations have already been memorized, or to change memorized data, perform procedures 4 to 6.

Listening to Broadcasts Using Preset Tuning

Press the STATION CALL button into which the desired station has been preset.

- Use the STATION CALL buttons ([*1] – [*0]) to select a STATION CH. One press selects the 1 – 10 range, two presses 11 – 20 and three presses 21 – 30.

Last station memory

When the POWER switch is pressed to turn power on, the last station received before the power was turned off will be tuned in again.
When the power is ON, if the BAND button is pressed, the last station received on that band will be tuned in again.

SHORT-TIME RECEPTION OF CONSECUTIVE STATIONS – Memory scan

Reception of consecutive broadcast stations memorized in STATION CALL buttons (each station is received for about five seconds).
You can scan all stations, or just the stations memorized in the custom memory.

[Scanning the genres in the custom memory]

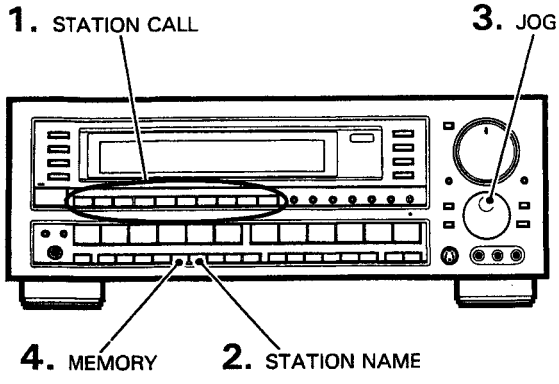
1. **Display the desired genre using the CUSTOM MEMORY SELECT button.**
2. **Press the SCAN button.**

[Scanning all the stations memorized in STATION CALL buttons]

During TUNER display, press the SCAN button.

NAMING A STATION

If desired, you may memorize station call-letters and display them. In this case, use the call-letter mode.



Memorizing with the call-letter mode.

- A maximum of four characters can be memorized.

1. **Tune into a desired station, and preset in a STATION CALL button.**
   - Refer to "PRESET TUNING" for preset procedure.
   - Stations already preset can be recalled with the STATION CALL buttons.
2. **Press the STATION NAME button.**
3. **Select the desired character with the JOG dial.**
   - Turning the JOG dial in a clockwise direction changes the characters in the following order.

"A"→ "B"→ --- → "Z"→ "0"→ "1"→ --- → "9"
" " ←"@" ←"'" ←"*"→ "–" ←"+" ←"\" ←"/"

4. **Press the MEMORY button.**
5. **By repeating steps 3 and 4 up to four characters can be memorized.**
   - When "COMPLETE" is displayed, memorization is completed.
   - Press MEMORY button within 5 seconds of selecting a character otherwise the procedure is canceled and the display returns to TUNER or the previously memorized name.
6. **Repeat steps 1 to 5 when naming other stations.**

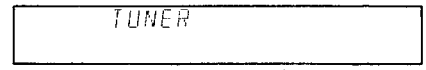
Returning to the TUNER display.

1. **Use the JOG MODE button to select "TUNING".**
2. **Change the reception frequency with the JOG dial.**
   - The station display name will change to "TUNER".

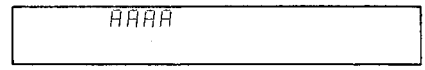
Example: To set the name "ABCD" into STATION CALL button CH9.

① Select CH 9 (Press [*9] once.)

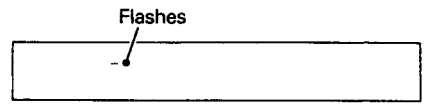
When no station name has been previously memorized.



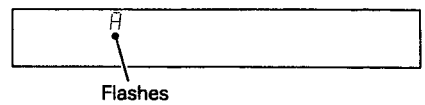
(When a station name has been previously memorized.)



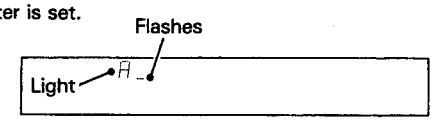
② Press the STATION NAME button.



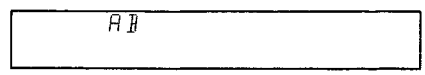
③ Turn the JOG dial until "A" is displayed.

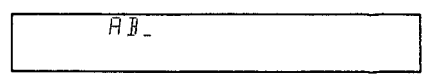


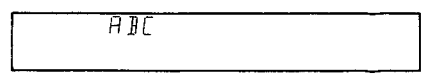
④ Press the MEMORY button.
When one character is set.

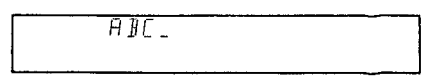


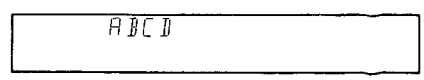
⑤ Repeat the operation for the other characters.

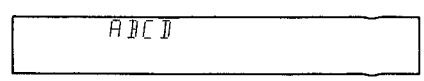








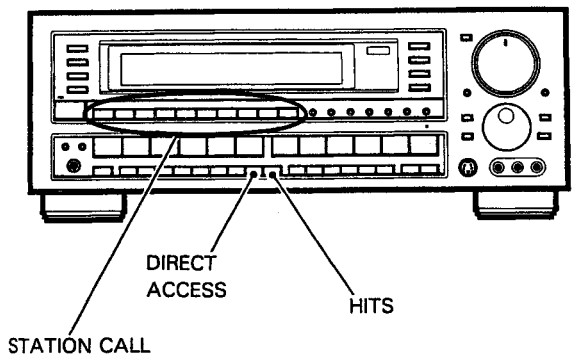




If all four characters are not set, the new name will not be memorized.
If a name has less than four characters, insert a space (" ").
If frequencies are not yet stored in STATION CALL buttons, tune in a station, and then store it in one of the STATION CALL buttons.

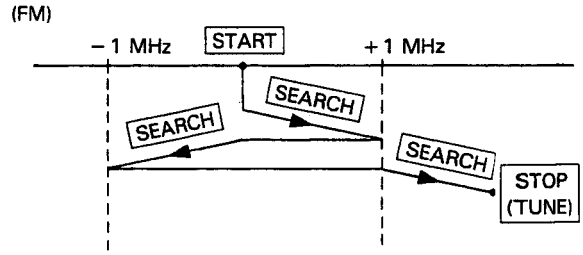
HITS (Hyper Intelligent Tuning System)

You can use the HITS function in the three following situations.



① **When inputting frequency numbers for DIRECT ACCESS TUNING:**
- If the HITS button is pressed during input of numbers for DIRECT ACCESS tuning, the receiver sets the remaining digits which have not yet been input to "0", searches for the corresponding frequencies, and stops on the first station it finds.

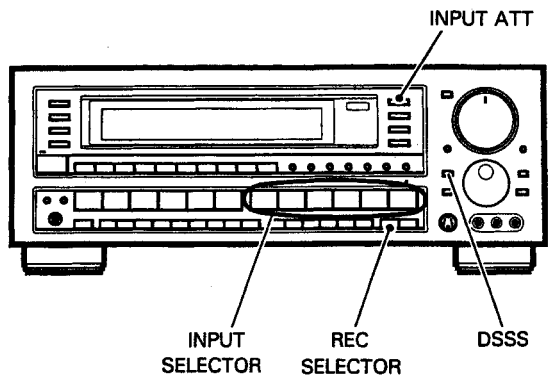
② **During frequency display:**
- If the HITS button is pressed at the currently displayed station frequency, the receiver searches up and down the frequency for the next station and stops at the first one it finds.



③ **When inputting a station name:**
If the HITS button is pressed during station call-letter input and the receiver performs a memory search for other stations in the STATION CALL memory which begin with the same letter(s) (one to four characters) as those you have input (starting from the left). (Each is tuned in for approximately 5 seconds. Press the HITS button to cancel.)

OPERATING THE AUDIO COMPONENTS

Press the POWER switch to the ON position, and turn on the power to the other audio components you wish to use.



PLAYBACK

1. **Use the INPUT SELECTOR buttons to select the desired audio program source.**

Program source	INPUT SELECTOR
To listen to a tape on the cassette deck (or DAT) connected to TAPE 1/DAT jack	TAPE 1/DAT
To listen to a tape on the cassette deck connected to TAPE 2 jacks	TAPE 2 MONITOR*
To listen to audio components connected to the LINE jacks.	LINE
To listen to compact discs	CD
To listen to records	PHONO

* If you select a music source other than TAPE 2, switch off the TAPE 2 MONITOR.

2. **Operate the appropriate audio component to play back the program source.**
3. **Adjust the volume and tone controls as desired.**
   - When listening to a monaural source, turn the DSSS button ON to enjoy simulated stereo sound.
   - Refer to page 32 for details concerning surround operation.
   - Refer to page 33, 34 for details concerning sound quality adjustment.
   - When there is distortion due to excessively high input level, switch INPUT ATT ON.

RECORDING

You can record sound from TUNER, LINE, CD, and PHONO on TAPE 1/DAT, or TAPE 2 cassette decks.
For TAPE 1/DAT, you can select the source with the REC SELECTOR.

RECORDING WITH TAPE 1/DAT

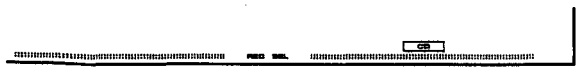
When not using the REC SELECTOR

1. **With the REC SELECTOR button, make sure that no component indicators are lit in the REC SEL display.**
2. **Select the source you want to record from (TUNER, LINE, CD, or PHONO) with the INPUT SELECTOR buttons.**
3. **Load the TAPE 1/DAT cassette deck (or DAT deck) with a tape for recording.**
4. **Start recording on the TAPE 1/DAT cassette deck (or DAT deck).**
5. **Start playback on the component selected with the INPUT SELECTOR buttons.**

When using the REC SELECTOR

With the INPUT SELECTOR buttons, you can select a component and a different recording source. For example, you can listen to a record while recording a CD.

1. **Select the source you want to record from (TUNER, LINE, CD, or PHONO) with the REC SELECTOR button.**



2. **Load the TAPE 1/DAT cassette deck (or DAT deck) with a tape for recording.**
3. **Start recording on the TAPE 1/DAT cassette deck (or DAT deck).**
4. **Start playback on the component selected with the REC SELECTOR button.**

- Do not select TAPE 1/DAT with the INPUT SELECTOR.

RECORDING WITH TAPE 2

The REC SELECTOR does not operate with TAPE 2. The source selected by the INPUT SELECTOR buttons can be recorded.

1. **Select the source you want to record from (TUNER, LINE, CD, or PHONO) with the INPUT SELECTOR buttons.**
   - Be sure the TAPE 2 MONITOR button is OFF.
2. **Load the TAPE 2 cassette deck with a tape for recording.**
3. **Start recording on the TAPE 2 cassette deck.**
4. **Start playback on the source selected with the INPUT SELECTOR buttons.**

USING VCR 1, VCR 2 FOR AUDIO RECORDING

The audio signal output from the VCR 1 and VCR 2 AUDIO REC jacks is the same as that output from the TAPE 1/DAT REC jacks, so you can record using the same procedure as for recording with TAPE 1/DAT. When using the REC SELECTOR, do not select the component that you are using for recording audio on (VCR 1 or VCR 2) with the INPUT SELECTOR.

COPYING TAPES

The following operations concerns TAPE 1 to TAPE 2 copying. TAPE 2 to TAPE 1 copying is not possible.

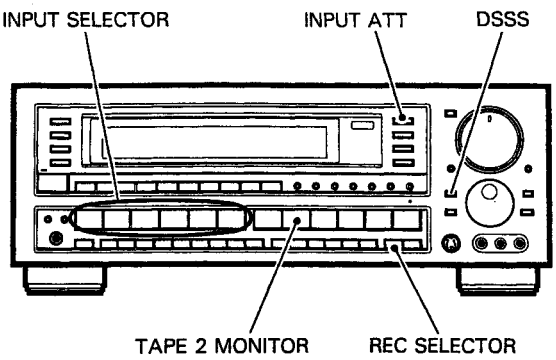
1. **Press the TAPE 1/DAT INPUT SELECTOR button.**
   - If the TAPE 2 MONITOR button is ON, press to turn it OFF.
2. **Load the TAPE 1/DAT cassette deck (or DAT deck) with a tape to play back.**
3. **Load the TAPE 2 cassette deck with a tape to record to.**
4. **Start recording on the TAPE 2 cassette deck.**
5. **Start playback on the TAPE 1/DAT cassette deck (or DAT deck).**

Tape monitoring

When recording is performed on a cassette deck equipped with monitoring function, the recorded sound can be monitored through the speaker system by pressing the TAPE 2 MONITOR button to ON.

OPERATING THE VIDEO COMPONENTS

Press the POWER switch to the ON position, and turn on the power to the other video components you wish to use.



PLAYBACK

1. **Use the INPUT SELECTOR buttons to select the desired video program source.**

Program source	INPUT SELECTOR
To watch a video cassette tape on the VCR connected to VCR 1 jacks	VCR 1
To watch a video cassette tape on the VCR connected to VCR 2 jacks	VCR 2
To watch a video cassette tape on the VCR or TV camera, etc., connected to front panel VCR 3 INPUT jacks	VCR 3
To watch a video disc on a video disc player or compatible LaserDisc player connected to LD IN jacks	LD
To watch a TV program (reception with a TV tuner connected to TV IN jacks)	TV
When watching a video played back on a video component connected to the VIDEO IN jacks.	VIDEO

* If the TAPE 2 MONITOR button is ON, press to turn it to OFF.

2. **Operate the appropriate video component to play back the program source.**
3. **Adjust the volume and tone controls as desired.**
   - When sound is monaural, turn the DSSS button ON to enjoy simulated stereo.
   - Refer to page 32 for details concerning surround operation.
   - Refer to page 34 for details concerning picture quality adjustment with the video enhancer.
   - Refer to page 33, 34 for details concerning sound quality adjustment.
   - When there is distortion due to excessively high input level, switch INPUT ATT ON.

VIDEO RECORDING

You can record audio and video from VCR 3, LD, TV, VIDEO, on VCR 1 and VCR 2.
You can also select the video recording source with the REC SELECTOR.

When not using the REC SELECTOR

You can record video that has been adjusted by the enhancer.

1. **With the REC SELECTOR button, make sure that no component indicators are lit in the REC SEL display.**
2. **Select the source you want to record from (VCR 3, LD, TV, VIDEO), with the INPUT SELECTOR buttons.**
3. **Load the VCR 1 (or VCR 2) with a tape for recording.**
4. **Start recording on VCR 1 (or VCR 2).**
   - For VCR 1 or VCR 2, select a line input (external input).
5. **Start playback on the component selected with the INPUT SELECTOR buttons.**

When using the REC SELECTOR

You can select a source and different video recording source with the INPUT SELECTOR buttons. For example, you can enjoy a video on VCR 3 while recording a video disc. In this case, video recording of a picture that has been adjusted by the enhancer is not possible.

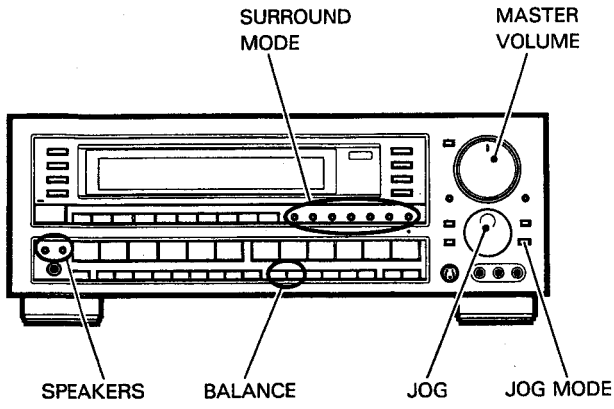
1. **Select the source you want to record from (VCR 3, LD, TV, VIDEO) with the REC SELECTOR button.**

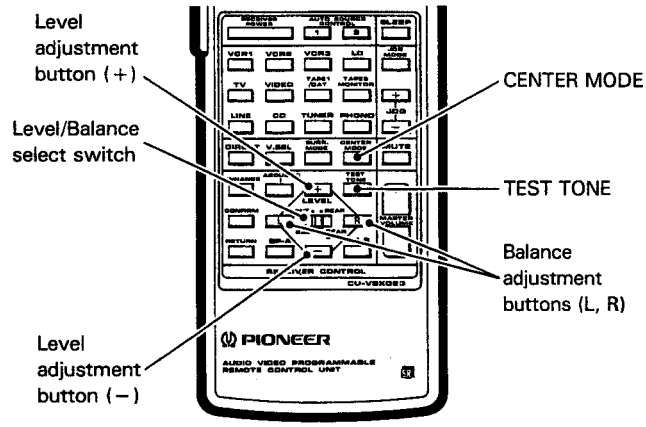
2. **Load VCR 1 (or VCR 2) with a tape for recording.**
3. **Start recording on VCR 1 (or VCR 2).**
   - For VCR 1 or VCR 2, select a line input (external input).
4. **Start playback on the component selected with the REC SELECTOR button.**
   - Do not select the component that you are using to record video on (VCR 1 or VCR 2) with the INPUT SELECTOR.

COPYING VIDEO TAPES

The procedure for copying from VCR 1 to VCR 2, and from VCR 2 to VCR 1 when using REC SELECTOR, and when not using it, are the same as previously mentioned. Select the component for playback with the INPUT SELECTOR or REC SELECTOR.

USING SURROUND





DOLBY PRO LOGIC SURROUND AND DOLBY 3CH LOGIC

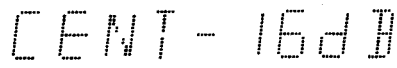
Use with video or audio software bearing the DOLBY SURROUND mark.
Use DOLBY PRO LOGIC SURROUND when rear speakers are connected, and DOLBY 3CH LOGIC when rear speakers are not connected.

1. **Turn the DOLBY PRO LOGIC or DOLBY 3CH LOGIC button ON.**
2. **Select the center mode with the remote control CENTER MODE button.**
   - Refer to page 6.

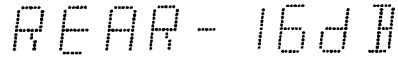
LEVEL ADJUSTMENT

For correct SURROUND reproduction, be sure to perform this adjustment.

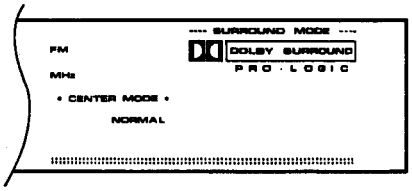
1. **Use SURROUND MODE buttons to select DOLBY PRO LOGIC SURROUND or DOLBY 3 CH LOGIC.**
2. **Use SPEAKERS button to turn on front speakers.**
3. **Adjust MASTER VOLUME to a suitable listening level.**
4. **Press BALANCE L and R buttons together.**
5. **Set the remote control Level/Balance select switch to the CENT position, and adjust using the +, – buttons until the center level is at its initial value (–16 dB) in the display.**



6. **Set the remote control Level/Balance select switch to the REAR position, and adjust using the +, – buttons until the center level is at its initial value (–16 dB) in the display.**



7. **Select the desired CENTER MODE (NORMAL, WIDE, PHANTOM) with the CENTER MODE button. (See page 6)**
   - With DOLBY 3CH LOGIC, you can select NORMAL or WIDE; but you cannot select PHANTOM.



8. **Press the remote control TEST TONE button to switch the test tone ON.**
9. **Adjust so that the volume level is the same from each of the speakers.**
   - Adjust front speaker balance with the receiver balance buttons.
   - To adjust center speaker level, set the remote control Level/Balance select switch to the CENT position, and adjust with the +, – buttons.
   - For the rear speakers, set the remote control Level/Balance select switch to the REAR (REAR BAL) position, and adjust the balance with the L, R buttons, and the level with the +, – buttons. (Only when DOLBY PRO LOGIC SURROUND is operating.)
10. **Press the remote control TEST TONE button to switch the test tone OFF.**
11. **Use INPUT SELECTOR button to select your desired source.**
12. **Adjust the desired sound level by the MASTER VOLUME.**

NOTE:

- *The TEST TONE turns off if you operate the INPUT SELECTOR.*
- *Remote control buttons will not operate if you press two or more at the same time. Press the L, R, +, and – buttons one at a time, and confirm operation by looking at the display or listening to the sound.*
- *Tone controls do not operate when using DOLBY PRO LOGIC SURROUND and DOLBY 3CH LOGIC.*

SETTING THE DELAY TIME

When using DOLBY PRO LOGIC SURROUND, you can set the delay time between 15 ms and 30 ms. The standard setting is 20 ms, but you can select any setting of your choice.

1. **Use the JOG MODE button to light the DELAY indicator.**
   - DELAY and ms light in the display section.

2. **Set the delay time with the JOG dial.**

JAZZ, DANCE, CHURCH, HALL, THEATER — SFC (Sound Field Control) surround

Besides DOLBY PRO LOGIC SURROUND, this unit is equipped with DSP that provides five different SFC surround modes. You can control the level of the surround effect with the JOG dial.

LEVEL ADJUSTMENT

1. **Press the remote control TEST TONE button to switch the test tone ON.**
2. **Adjust so that the volume level is the same from each of the speakers.**
   - Adjust front speaker balance with the receiver balance buttons.
   - For the rear speakers, set the remote control Level/Balance select switch to the REAR (REAR BAL) position, and adjust the balance with the L, R buttons, and the level with the +, − buttons.
3. **Press the remote control TEST TONE button to switch the test tone OFF.**

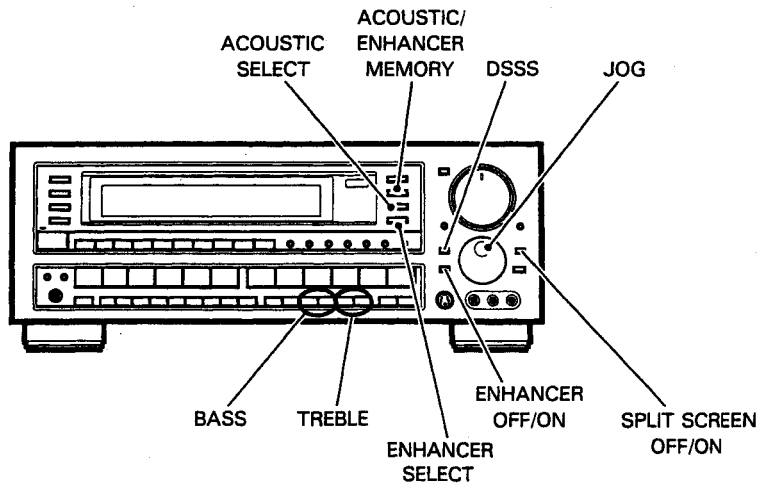
SETTING THE EFFECT LEVEL

1. **Select one of the SURROUND MODE buttons.**
   - The selected surround mode indicator lights in the display section.
2. **Adjust the total effect to your desired level with the JOG dial.**
   - A numerical display from 5 to 100 of the effect level is shown in the display section. For the most enjoyable sound, the best position is usually about 55.

NOTE:
Tone controls do not operate in THEATER mode.

Note:
The display's tone meter shows the current tone characteristics. The acoustic select memory position letter indicates the last one selected.

SOUND QUALITY AND PICTURE QUALITY ADJUSTMENT

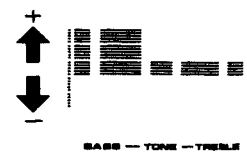


HOW TO USE THE TONE CONTROL

Adjust the sound using the BASS and TREBLE control buttons (+, −).
- Levels are indicated by the Level/Tone meter in the display section.

NOTE:
Rear and center channel tone controls are not possible.

(Example) When you have continued to press the BASS "+" button.

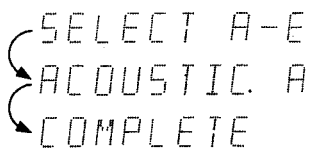


HOW TO USE THE ACOUSTIC MEMORY

Up to 5 different tone settings can be memorized.
Memorized tone settings can be recalled using the ACOUSTIC SELECT button.

Setting the Memory

1. **Perform desired sound quality adjustments.**
   • Refer to "HOW TO USE THE TONE CONTROL"
2. **Press the ACOUSTIC/ENHANCER MEMORY button.**
   • "SELECT A – E" flashes in the display section.
3. **While it is flashing, press the ACOUSTIC SELECT button, and select the acoustic memory to which you wish to assign the setting (A – E).**
   • When the memory position letter (A – E) stops flashing and "COMPLETE" lights up, it is memorized. If a memory position (A – E) is not selected while flashing, no memory position is memorized.



Recalling tone setting in the Acoustic Memory

To recall the memorized tone setting, press the ACOUSTIC SELECT button to select the desired memory position.

LOUDNESS ⟶ FLAT ⟶ A ⟶ B ⟶ C ⟶ D ⟶ E

FLAT: For flat (normal) frequency response.
LOUDNESS: Emphasizes the low- and high-frequency ranges. Produces a fuller sense of sound, particularly when listening at low volume.
A – E: Memorized acoustic memory settings.

HOW TO USE THE ENHANCER AND SPLIT SCREEN

The built-in video enhancer lets you adjust picture quality for playback or recording.
The video enhancer has no effect on S (video) and MULTI-ROOM & VIDEO OUT output signals.
When selecting a video component with the input selector, and when the V-SIGNAL SELECTOR is ON, you can switch the enhancer ON.

1. **Turn the ENHANCER OFF/ON button ON.**
   • "ENHANCER" is indicated in the display section.
2. **Adjust the effect level with the JOG dial.**

With the split screen, you can see the picture with the enhancer ON and OFF at the same time.

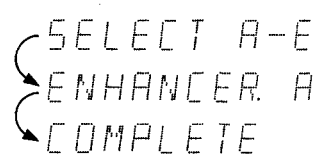
Turn the split screen ON with the SPLIT SCREEN OFF/ON button, and a vertical line appears in the center of the screen.
When performing enhancer adjustments, the left side shows the picture without enhancer adjustment, and the right side shows the picture with enhancer adjustment. This lets you easily confirm how much you have adjusted the picture with the enhancer.
When using the split screen function, the video signal output from the VCR 1 and VCR 2 REC jacks will provide a complete picture on the screen showing the effects of enhancer adjustment, and not a split screen.

HOW TO USE THE ENHANCER MEMORY

Up to five different enhancer settings can be memorized.
Memorized enhancer settings can be recalled using the ENHANCER SELECT button.

Setting the Memory

1. **Adjust picture quality to the desired level with the enhancer.**
   • Refer to "HOW TO USE THE ENHANCER AND SPLIT SCREEN".
2. **Press the ACOUSTIC/ENHANCER MEMORY button.**
   • "SELECT A – E" flashes in the display section.
3. **While it is flashing, press the ENHANCER SELECT button and select the enhancer memory to which you wish to assign the setting (A – E).**
   • When the memory position letter (A – E) stops flashing and "COMPLETE" lights up, it is memorized. If a memory position (A – E) is not selected while flashing, no memory position is memorized.



4. **Press the ENHANCER SELECT button. Call up the programmed memory position letter, and confirm that the enhancer effect level is correctly memorized.**

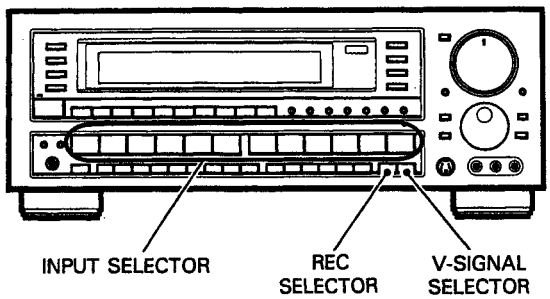
Recalling enhancer setting in the Enhancer Memory

To recall the memorized enhancer settings, press the ENHANCER SELECT button to select the desired memory position.

A ⟶ B ⟶ C ⟶ D ⟶ E

USING THE VIDEO SIGNAL SELECTOR

This function can be used to allow you to listen to the playback sound while changing the video image only, thus allowing you to play back and record video images different from the playback sound source. For example, VCR 1 can record video disc picture mixed with CD sound.



1. **Select the component you want to listen to with the INPUT SELECTOR buttons.**
   - For example, press CD.
2. **Select the video component you want to watch with the V-SIGNAL SELECTOR button.**
   - The source is indicated in the character display section.

V. SEL LD

3. **Start playback of the component selected with the INPUT SELECTOR buttons, and the component selected with the V-SIGNAL SELECTOR button.**

Video Recording

1. **Confirm that the REC SELECTOR is OFF.**
   - If the REC SELECTOR indicator is lit, press the REC SELECTOR button to switch to the OFF mode.
2. **Load VCR 1 or VCR 2 with a tape for video recording.**
   - If you select VCR 1 with the V-SIGNAL SELECTOR, record on VCR 2, and if you select VCR 2, record on VCR 1. If you select VCR 3, LD, TV, or VIDEO, you can record on either VCR 1 or VCR 2.
3. **Start recording on the VCR loaded with the tape for recording.**
   - For VCR, select a line input (external input).
4. **Start playback of the component selected with the V-SIGNAL SELECTOR and the component selected with the INPUT SELECTOR buttons.**

CAUTION:

- If you must operate the V-SIGNAL SELECTOR button during recording, do so after setting the recording VCR to the pause mode. If the button is operated when the tape is traveling during recording, the recorded image and sound may be disrupted at the point at which the button is operated.
- If you experience no video or wrong video, push the appropriate INPUT SELECTOR button for the function being used.

USING THE AUTO SOURCE CONTROL

You can memorize receiver settings, and recall at the touch of a button. Two memory buttons are available.

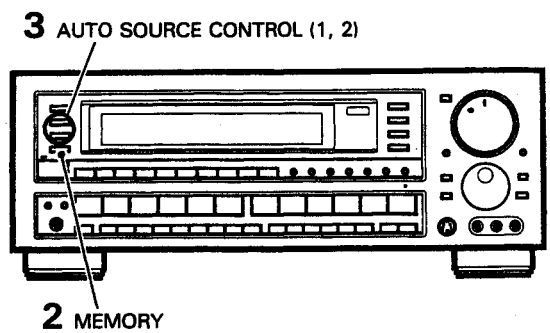
If you connect a component bearing the Pioneer SR mark, such as a CD player, to the CONTROL OUT jack on the rear panel, signals can also be transmitted to automatically switch on power and start play of that component.

NOTE:

With some components, even if they bear the SR mark, power cannot be switched on and off by remote control.

[Operating Memory]

1. **Select the settings on the receiver you want to memorize.**
2. **Press the MEMORY button.**
   - After the "AUTO SOURCE CONTROL" indication has scrolled in the display, "MEMORY" appears and flashes.
3. **Press the AUTO SOURCE CONTROL button (1 or 2) you want to use for memorizing.**



Example:

Using the AUTO SOURCE CONTROL 1 button to memorize settings to start play on a CD player connected to the receiver's CONTROL OUT jack.

1. **Set the receiver INPUT SELECTOR to CD.**
2. **Adjust DIRECT, tone, surround, and other parameters to the settings you want to memorize.**
3. **Set the volume to the level you want to memorize.**
4. **Press the MEMORY button.**

AUTO SOUR

⇩

MEMORY

5. **Press the AUTO SOURCE CONTROL 1 button.**

MEMORY 1

USING THE AUTO SOURCE CONTROL

[Recalling]

Press the AUTO SOURCE CONTROL button (1 or 2) for the settings you want to recall.
Remote control AUTO SOURCE CONTROL buttons (1 or 2) can also be used to recall settings.

RECALL 1

In the case of the example, the following operations are performed.

① Press the AUTO SOURCE CONTROL 1 button.
② Power to the receiver switches ON, the INPUT SELECTOR selects CD, settings for such parameters as DIRECT, surround, and tone are called up, and power to the CD player is switched ON.
③ Play starts on the CD player.
④ Volume level is raised by the MASTER VOLUME on the receiver.

NOTE:

- *Since the power ON and play signals for components bearing the SR mark called by Auto source control are output through this unit's CONTROL OUT jack, be sure to connect the control cord (refer to page 24).*
- *With some components, even if they bear the SR mark, power cannot be switched on and off by remote control. If this is the case, by connecting the other unit's power cord to this unit's SWITCHED AC OUTLET, and leaving the other unit's power switch ON, power switching will depend on whether this unit is on or off.*
- *Volume level can not be raised above the center setting.*
- *AUTO SOURCE CONTROL memory stores the receiver settings at that point in time; it does not memorize STATION CALL numbers (1—30), CUSTOM MEMORY, STATION NAME, ENHANCER MEMORY (A—E), or ACOUSTIC MEMORY (A—E, LOUDNESS, FLAT).*

With auto source control, power ON/OFF signals and play signals are output from the CONTROL OUT jack at the times shown in the following chart.
At these times, PLAY 000 is displayed (000 is the function).

Function at the time of memorizing	POWER signal	PLAY signal
PHONO	—	Yes
TUNER	No	No
CD	Yes	Yes
LINE	No	No
TAPE 1	Yes	Yes
TAPE 2	Yes	Yes
VCR 1	Yes (VCR, TV)	Yes (VCR PLAY, TV FUNC "LD")
VCR 2	Yes (VCR, TV)	Yes (VCR PLAY, TV FUNC "LD")
VCR 3	Yes (VCR, TV)	Yes (VCR PLAY, TV FUNC "LD")
LD	Yes (LD, TV)	Yes (LD PLAY, TV FUNC "LD")
TV	Yes (TV)	Yes (TV FUNC "TV")
VIDEO	No	No

USING MULTI-ROOM AND SOURCE (MR & S)

Refer to page 16 for details concerning connections.

By incorporating the separately sold MR-100 Multi-Room System remote control unit, you can enjoy playing two sources at the same time.
MR & S operation is not possible when the REC SELECTOR is ON.
MR & S operation is not possible when the surround is ON.

Remote control operation in Sub room

(With Sub room, only remote control operation is possible.)

1. The following remote control button can be used to operate the receiver in Sub room.
   - RECEIVER POWER button. (When MR & S is ON)
   - RETURN button.
   - Input selector buttons except TAPE 2 MONITOR.
   - MASTER VOLUME (+, −) buttons: These adjust Sub room volume level.
   - TUNER station call 1-0/10 buttons: The function automatically switches to TUNER.
   - MUTE button: When muting is turned on and then turned off, volume does not return to the previous setting; instead it returns to the initial volume.

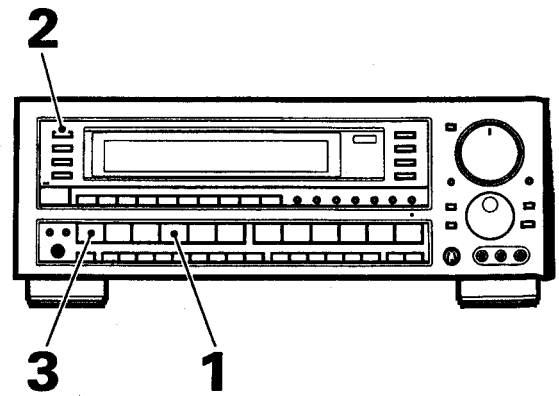
   * Balance operation is not possible in Sub room.

2. If you connect to the CONTROL jacks of other components, bearing the SR mark, such as a CD player or cassette deck, remote control of these components is also possible.
3. If light from strong fluorescent lamps falls on the MR-100 remote sensor window, remote control operation may not be possible.

For example

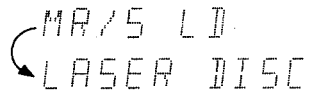
When enjoying playback on VCR 1 on speakers and the first TV monitor installed in Main room, you can enjoy a LaserDisc on speakers and MULTI-ROOM TV monitor in Sub room.

[Operation]



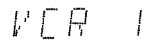
[Setting MULTI-ROOM & SOURCE Sub Function]

1. **Select LD with the INPUT SELECTOR buttons.**
2. **Turn the MULTI-ROOM & SOURCE OFF/ON button ON.**
   - The button lights.
   - When MULTI-ROOM & SOURCE is ON, the Sub function at that time is the same as that set with the INPUT SELECTOR. After switching MULTI-ROOM & SOURCE ON, the SUB FUNCTION cannot be switched on the receiver. Switch it from Sub room with the remote control unit.



[Setting MULTI-ROOM & SOURCE Main Functions]

3. **Select VCR 1 with the INPUT SELECTOR buttons.**



4. **Start playback of VCR 1 and the LD player.**
5. **For Main room, adjust volume level with the receiver's MASTER VOLUME control.**
   For Sub room, point the remote control at the MR-100 and adjust the volume level with the MASTER VOLUME buttons.

In Sub room, when you do not know the present volume level or Sub Function of the receiver, press the RETURN button. The Sub Function becomes TUNER, and you will hear the broadcast preset in station call No.1. The volume level will be that initially set on the receiver. You can then select your desired Sub Function, and adjust volume to the desired level.

Precautions concerning MULTI-ROOM & SOURCE

- In Sub room, if you use the remote control to switch RECEIVER POWER off (standby), power to the receiver itself is cut, so be careful when recording or copying tapes in Main room.
- Remember that if you operate the tuner section in Sub room and change the station when you are recording a radio broadcast in Main room, the station you changed to will be recorded.
- The first time you use MULTI-ROOM & SOURCE, volume in Sub room will be set to the initial level. Each time you switch MULTI-ROOM & SOURCE ON, volume returns to the initial level.
- When MULTI-ROOM & SOURCE is ON, Sub Function and Sub room volume level cannot be changed in Main room.
- MULTI-ROOM & SOURCE can only be switched ON/OFF with the switch on the receiver itself. Set the Sub Function in Main room, switch MULTI-ROOM & SOURCE ON, and move to Sub room. Volume levels in Main room and Sub room are independent.
- In Main room and Sub room, when a remote control signal is transmitted at the same time, the receiver does not operate.
- Sub room volume can not be completely cut off. Even if you continue pressing the MASTER VOLUME – button on the remote control, there will still be a little sound.

• Switch setting and output

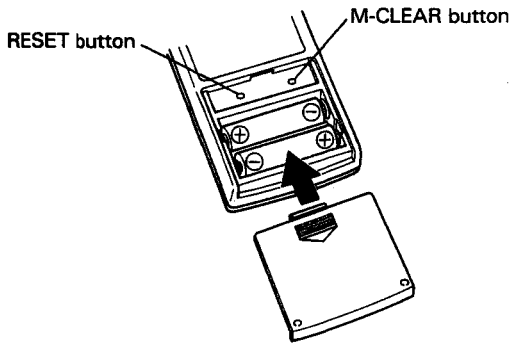
SWITCHES			AUDIO OUTPUT JACKS		SPEAKERS OUTPUT			VIDEO	
MULTI ROOM & SOURCE	SURROUND MODE	REC SELECTOR	REAR AMP PRE OUT	REC	FRONT A, B	MULTI ROOM SPEAKER	REAR	TO MONITOR TV	MULTI ROOM & SOURCE VIDEO OUT
OFF	OFF	OFF	Mute	Main Function	Main Function	–	Mute	Main Function	Mute
OFF	OFF	ON	Mute	REC SELECTOR Function	Main Function	–	Mute	Main Function	Mute
ON	OFF	OFF	Sub Function	Main Function	Main Function	Sub Function	Mute	Main Function	Sub Function
OFF	ON	OFF	SUR Rear	Main Function	SUR Front	–	SUR Rear	Main Function	Mute
OFF	ON	ON	SUR Rear	REC SELECTOR Function	SUR Front	–	SUR Rear	Main Function	Mute

• VIDEO (REC) OUT is the same source as AUDIO (REC) OUT. When the input selector is switched to the audio source, VIDEO OUT is mute.
SUR: Surround

REMOTE CONTROL

LOADING BATTERIES

1. **Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you slide it in the direction of the arrow while pressing on it with your thumb.**
2. **Take out the two supplied size "AA" alkaline batteries (LR6/AM-3), and insert them into the battery compartment in accordance with the indications in the compartment.**
3. **Press the RESET button.**
4. **Close the cover of the battery compartment.**



Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

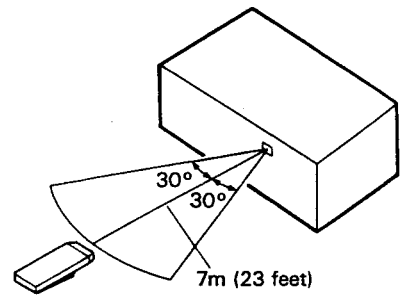
A.
Always insert batteries into the battery compartment correctly matching the positive + and negative − polarities, as indicated inside the compartment.

B.
Never mix new and used batteries.

C.
Batteries of the same size may have different voltages, depending on their type. Do not mix different types of batteries.

REMOTE CONTROL RANGE

When operating the remote control unit, point the front of the unit at the front panel of the receiver. The remote control unit may be used within a range of about 7 meters (23 feet) from the remote sensor, within angles of up to about 30 degrees.
Performance of the remote control unit is adversely affected by strong fluorescent light. Keep such lights away, especially from the sensor window.



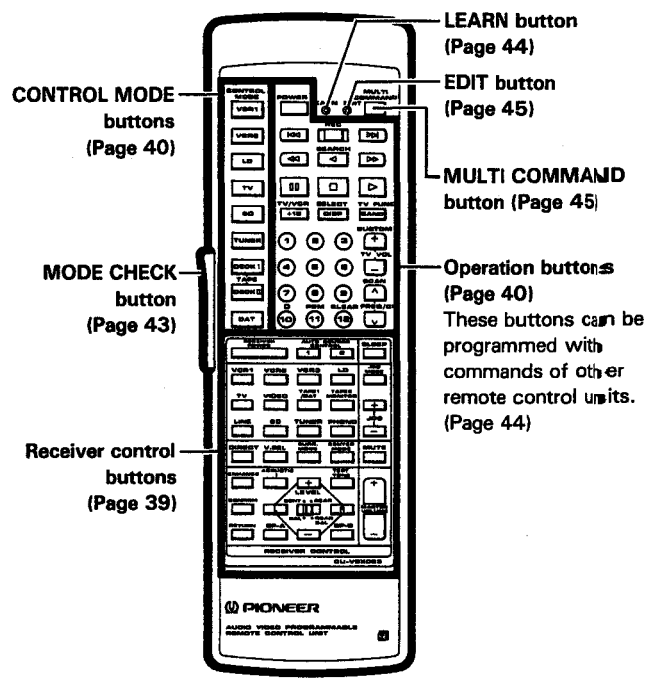
Battery Replacement

When the batteries have run out, the CONTROL MODE buttons will not light properly. If left like this, programs will be erased, so be sure to replace the batteries as soon as possible. As the programmed functions will be retained in memory only as long as batteries are inserted, remove the old batteries only if they can be replaced by new ones immediately. Also, be sure to always use the specified batteries. [size "AA" (LR6/AM-3) alkaline batteries]

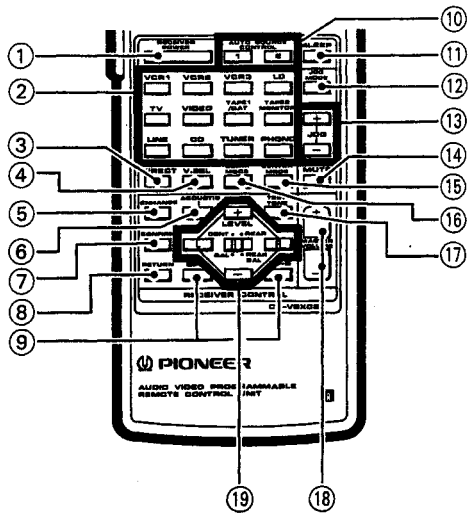
NOTE:
When no batteries are inserted, the programmed memory contents will be erased after about 30 minutes.
When you want to clear the Programmed memory, refer to page 46.
The memory cannot be cleared simply by removing the batteries.

OUTLINE OF BUTTON LAYOUT

- The buttons on the lower half of the remote control command receiver functions.
- Buttons on the upper half are used to operate other components.
- Operation buttons for other components can learn the command signals of other remote control units.
- There are 12 kinds of preset signals for operation of VCR 1, VCR 2, and TV. Select and use one of them.
- A maximum of seven commands can be programmed into the MULTI COMMAND button, enabling transmission of a sequence of commands at the push of a button.


LEARN button (Page 44)
EDIT button (Page 45)
CONTROL MODE buttons (Page 40)
MULTI COMMAND button (Page 45)
MODE CHECK button (Page 43)
Operation buttons (Page 40)
These buttons can be programmed with commands of other remote control units. (Page 44)
Receiver control buttons (Page 39)
PIONEER

RECEIVER CONTROL BUTTONS



① RECEIVER POWER button
Switches the receiver power between ON and STANDBY.

② Input selector buttons
Press when switching the receiver's INPUT SELECTOR.
The CONTROL MODE also switches to the same component (except VCR 3, VIDEO, LINE and PHONO). (One CONTROL MODE button lights.)
Pressing TAPE 1/DAT, TAPE 2 MONITOR, causes the CONTROL MODE DECK II button to light.

③ DIRECT button
Use to listen to source sound without passing the audio signal through sound quality or balance adjusting circuit.

④ V.SEL (VIDEO SIGNAL SELECTOR) button
This switches just the video signal in sequence, leaving the sound unchanged.

VCR 1 → VCR 2 → VCR 3 → LD → TV → OFF ← VIDEO ←

⑤ ENHANCE button
The enhancer setting changes in the following manner each time this button is pressed.

A → B → C → D → E

⑥ ACOUSTIC select button
The acoustic setting changes in the following manner each time this button is pressed.

LOUDNESS → FLAT → E ← D ← C ← B ← A

⑦ CONFIRM button
Use when you want to confirm receiver settings.
Press this button, and receiver settings are indicated in the display section in sequence.

⑧ RETURN button
Press the RETURN button to return the receiver into the initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME buttons.

⑨ SPEAKERS A, B buttons
A: ON/OFF button for SPEAKERS A.
B: ON/OFF button for SPEAKERS B.

⑩ AUTO SOURCE CONTROL 1, 2 buttons
Use to recall settings memorized in the receiver AUTO SOURCE CONTROL buttons 1 and 2.

⑪ SLEEP timer button
Activates the SLEEP timer. During SLEEP timer operation, the "dimmer" function decreases the brightness of the display section. The duration changes in the following manner each time the button is pressed:

120 → 90 → 60 → 30 → OFF
Unit: minutes

⑫ JOG MODE button
Use to select JOG MODE.

⑬ JOG (+, –) buttons
+: Pressing this is the same as turning the JOG dial on the main unit in a clockwise direction.
–: Pressing this is the same as turning the JOG dial on the main unit in a counterclockwise direction.

⑭ MUTE button
Use to temporarily mute the sound.
The volume is restored when pressed again.

⑮ CENTER MODE button
When THEATER, DOLBY PRO LOGIC SURROUND or DOLBY 3CH LOGIC are ON, use to switch the center mode (Refer to page 6).
- DOLBY PRO LOGIC SURROUND: NORMAL, PHANTOM, WIDE
- DOLBY 3CH LOGIC: NORMAL, WIDE
- THEATER: NORMAL, PHANTOM, WIDE

⑯ SURR (SURROUND) MODE button
The surround mode is switched in the following manner each time the button is pressed:

HALL → DANCE → THEATER → CHURCH → JAZZ → OFF ← DOLBY PRO LOGIC ← DOLBY 3CH LOGIC ←

⑰ TEST TONE button
Use to adjust the volume level from each speaker.
When the test tone is switched ON, "TEST" is displayed in the display section, and the test tone is output through each speaker in turn for about two seconds. Adjust volume level so that it is the same from each speaker.

⑱ MASTER VOLUME (+, –) buttons
Adjusts the overall volume.

⑲ LEVEL/BALANCE adjustment buttons/selection switch
Use to adjust speaker volume level and balance of each of the channels.
- When adjusting center level:

Level adjustment ..... [+], [–] buttons

- Rear level adjustment

Level adjustment ..... [+], [–] buttons

- Master balance

Balance adjustment ..... [L], [R] buttons

- Rear balance

Balance adjustment ..... [L], [R] buttons

OPERATING OTHER COMPONENTS

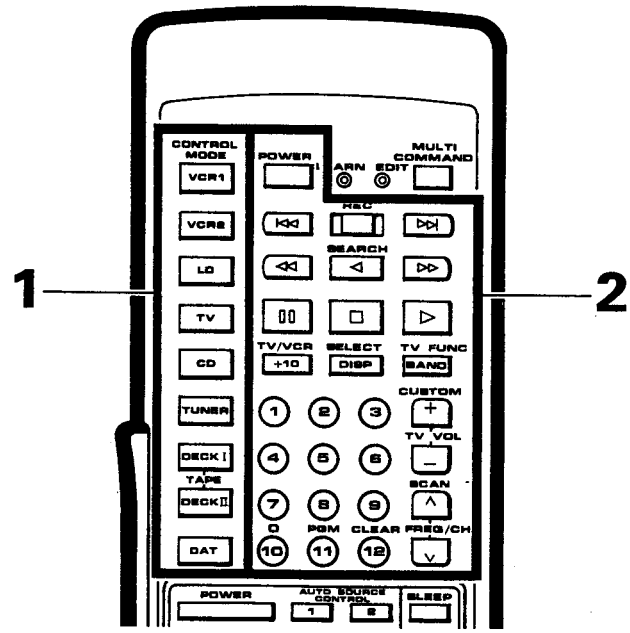
This remote control unit can be used to operate some functions of Pioneer SR marked VCRs, LD players, TV sets, CD players, tuners, cassette decks, and digital audio tape decks.

REMOTE CONTROLLING OF ANY OTHER OF YOUR AUDIOVISUAL COMPONENTS VIA THIS UNIT REQUIRES:

1. All components must be remote controllable (have a sensor window on the front panel) to receive direct command from this unit, upon successful learning of those commands by this programmable unit or,
2. All units must have remote control jacks (IN/OUT) on the rear panel and be correctly connected to the receiver according to the diagram on page 16, 17.

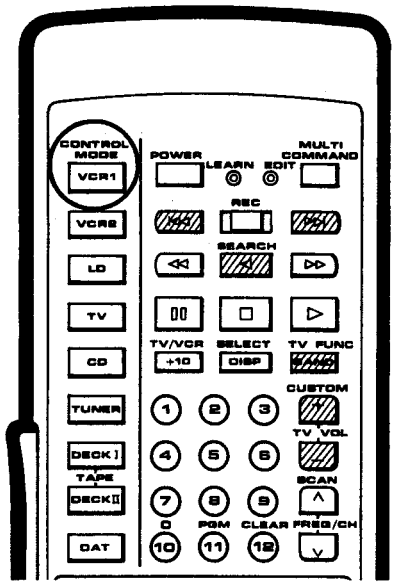
When operating components other than the receiver:

1. **Press the CONTROL MODE buttons for the component you want to operate.**
2. **Press the operation button.**



Shaded ▨ buttons do not operate in the selected CONTROL MODE.

VCR 1 operation



(With VCR 2, even if you press an operation button, no signal is output. Preset or program and use.)

POWER button:
Switches VCR power ON/OFF.

REC button:
Selects the recording mode.

◄◄ **(REW) button:**
Rewinds the tape and allows picture search.

►► **(FF) button:**
Rapidly advances the tape and allows picture search.

II **(PAUSE/STILL) button:**
Sets pause and still picture.

■ **(STOP) button:**
Stops tape transport.

► **(PLAY) button:**
Selects playback.

TV/VCR button:
This button can be used only for VCRs with a TV/VCR selector.
Toggles the antenna output between TV and VCR.

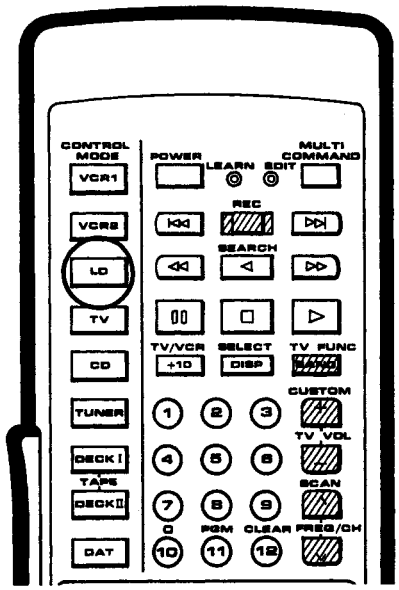
DISP (DISPLAY) button:
Switches TV screen display ON/OFF.

1–12 buttons:
Use to call up channels.

CH ∧ button:
Shifts channels in ascending order.

CH ∨ button:
Shifts channels in descending order.

Video disc player (LD player) operation



POWER button:
Switches VDP (LD player) power ON/OFF.

⏮ (CHAPTER SKIP) button:
Searches for the start of the chapter playing.

⏭ (CHAPTER SKIP) button:
Searches for the start of the next chapter.

SEARCH button:
Used for the search operation and for the memory repeat operation.

◀◀ (SCAN) button:
Selects fast backward.

▶▶ (SCAN) button:
Selects fast forward.

II (PAUSE) button:
Video and audio are stopped and playback is paused.

■ (STOP/EJECT) button:
Playback is stopped when pressed once. Pressing again causes the disc table to come out.

▶ (PLAY) button:
Selects playback.

+10 button:
Use to input such information as chapter numbers higher than 10.

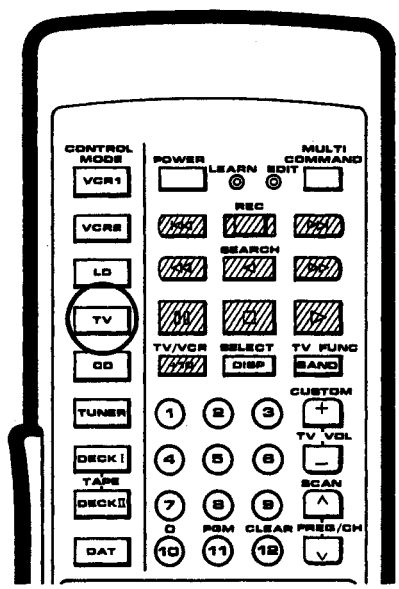
DISP (DISPLAY) button:
Switches TV screen display of chapter, frame/time number ON/OFF.

1—10 buttons:
Used for chapter and frame/time number search and for chapter program play.

PGM (PROGRAM) button:
Allows use of chapter program play.

CLEAR button:
Used for releasing repeat playback, number correction and mode release during search operation, and for releasing chapter program play.

TV operation



POWER button:
Switches the power of the TV ON/OFF.

DISP (DISPLAY) button:
TV super impose display ON/OFF.

TV FUNC (TV FUNCTION) button:
Used to change the TV FUNCTION.
- The TV FUNC button cannot be used with some Pioneer TVs.

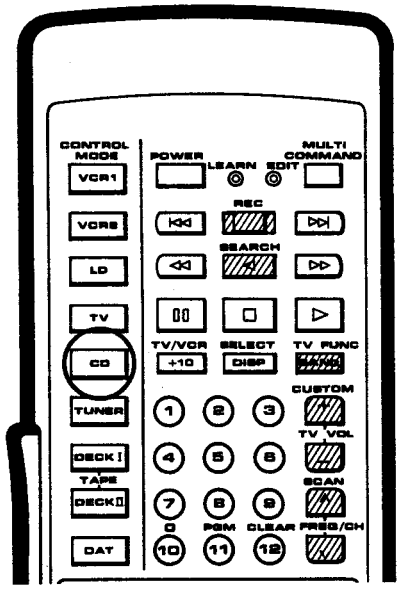
1—12 buttons:
Used to call up channels.

TV VOL (+, –) buttons:
Raises and lowers the volume.

CH (∧, ∨) buttons:
Changes the channel in the direction of larger (∧) and smaller (∨) channel numbers.

REMOTE CONTROL

CD player operation



POWER button:
Switches CD player power ON/OFF.

⏮ **(TRACK SEARCH) button:**
Returns to the beginning of the track currently playing.

⏭ **(TRACK SEARCH) button:**
Advances to the next track.

◀◀ **(MANUAL SEARCH) button:**
Selects fast backward.

▶▶ **(MANUAL SEARCH) button:**
Selects fast forward.

⏸ **(PAUSE) button:**
Pauses playback.

■ **(STOP) button:**
Stops playback.

▶ **(PLAY) button:**
Selects playback.

+10 button:
Use when selecting a track number higher than 10. For example, to select 21, press the [+10] button twice and then the [1] button. This button cannot be used with some Pioneer CD players.

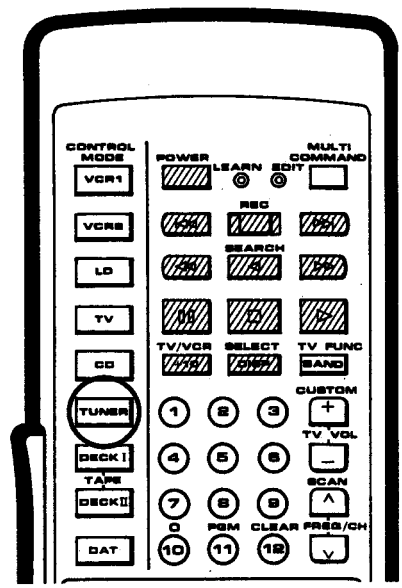
SELECT button:
Selects the DISC No. (1 to 6) for Multi-play CD players.

1–10 buttons:
For direct selection of a track or programming of tracks.

PGM (PROGRAM) button:
Press to program the CD player.

CLEAR button:
Erases a memorized program.

Tuner operation (The receiver/tuner section can also be operated in this position)



1–12 buttons:
For recall of tuner presets.
Buttons 1 to 10 are used for the receiver (Buttons 11 and 12 cannot be used).

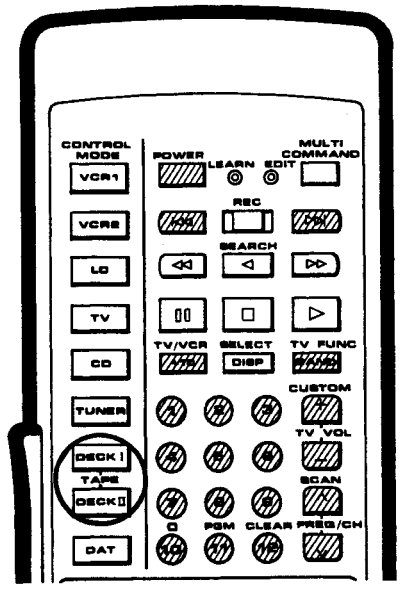
BAND button:
Switches the FM and AM bands in turn.

SCAN button:
Press when you want to operate memory scan.

CUSTOM button:
Press when you want to recall a custom memory genre name.

FREQ (∧, ∨) buttons:
Shifts the frequency up (∧) and down (∨).

DECK I, II operation



When using a single cassette deck, select DECK II.

REC button:
Selects the recording or recording standby mode.

◄◄, ►► (FF) buttons:
Rapidly advances the tape in the direction of the arrow.

◄ (PLAY) button:
Selects reverse playback.

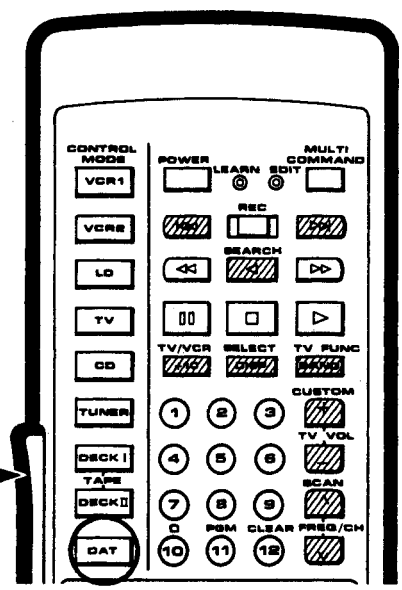
II (PAUSE) button:
Temporarily stops tape transport. Press again to resume tape transport.

■ (STOP) button:
Stops the tape transport.

► (PLAY) button:
Selects forward playback.

SELECT button:
Selects the cassette No. (1 to 6) for multi-cassette changer.

DAT (Digital Audio Tape deck) operation



POWER button:
Switches DAT deck power ON/OFF.

REC button:
Selects the recording mode.

◄◄ (REW) button:
Rewind.

►► (FF) button:
Fast forward.

II (PAUSE) button:
Temporarily stops tape transport.
Press again to resume tape transport.

■ (STOP) button:
Stops tape transport.

► (PLAY) button:
Playback.

1—10 buttons:
Use to input numbers.

PGM (PROGRAM) button:
Use to playback a program.

MODE CHECK button

When you press the MODE CHECK button, the button for the present CONTROL MODE (for example, LD) lights. If you continue pressing the button, the CONTROL MODE changes in sequence.

PROGRAMMING

The LEARN mode and the EDIT mode are available for programming. In the EDIT MODE, there is a PRESET mode and a MULTI-EDIT mode.

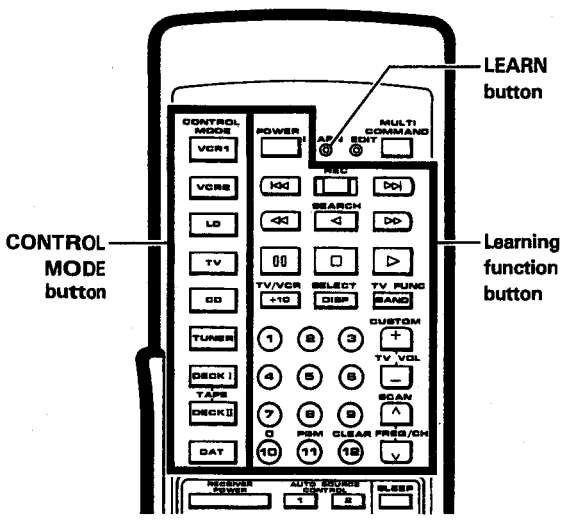
- **LEARN MODE:** In each of the CONTROL MODE, a single remote control signal can be input into each of the operation buttons.
- **EDIT MODE**
  PRESET MODE: In the VCR 1, VCR 2, or TV CONTROL MODE, you can select and use one of the 12 kinds of preset remote control signals.
  MULTI-EDIT MODE: Input up to seven commands into the MULTI-COMMAND button, and transmit the sequence of commands at the push of a single button.

LEARN

This system's remote control can "learn" the commands of other remote control units, regardless of manufacturer, as long as the other unit is of the infrared type.
On rare occasions, programming this unit may be impossible with some special types of infrared remote control units.
In some cases you may still need the original remote control unit for special situations. But as a rule, you will be able to use this Pioneer remote control for most system control needs, including video as well as audio equipment.

Learning capacity and buttons that can learn

The buttons shown in the diagram can learn. By changing the CONTROL MODE, a single button can be used to learn a maximum of nine commands, enabling a total of 261 commands to be learned. However, the capacity for learning differs depending on the remote control signal. With Pioneer remote control signals, about 70 commands can be learned.



[Learning procedure]

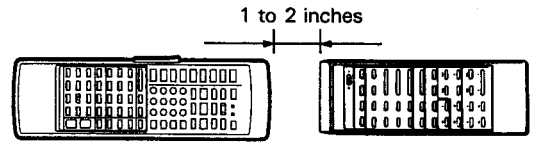
1. **Press the LEARN button to switch to the LEARN mode.**
2. **Press one of the CONTROL MODE buttons.**
3. **Press one of the learning function buttons that can learn.**
4. **Receive a remote control signal from another remote control and learn.**

[Operation example]

How to use the CONTROL MODE VCR 1 [►] button to learn the VCR PLAY signal

Place the transmission sections of the programmable remote control unit and the remote control of the VCR facing each other.

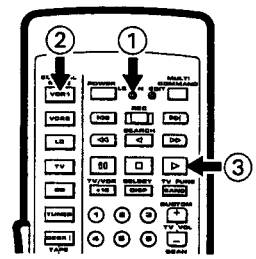
NOTE:
Be sure to place the remotes on a stable surface such as a table while doing this. Also, avoid placing near fluorescent lighting fixtures or in direct sunlight. When programing operations, use new batteries.

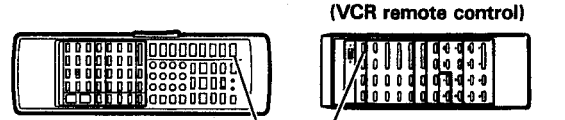


Place the two units on a table, separated by 2 to 5 cm (1 to 2 inches). Memorization will not be possible if they are too close.

1. **Press the LEARN button.**
   • All the CONTROL MODE buttons flash at random.
2. **Press the VCR 1 CONTROL MODE button.**
   • Only the VCR 1 button flashes.
3. **Press the [►] button.**
   • The VCR 1 button goes out, and lights after about one second.
   If you perform procedure 4 before the VCR 1 button lights, correct learning is not possible, so be sure to confirm that the button is lit.
4. **Continue pressing the PLAY button on the VCR remote control.**
   • When learning is completed, the VCR 1 button goes out, and all the CONTROL MODE buttons flash at random. The VCR 1 [►] button has learned the new signal.
   During the learning operation, if you press the VCR [►] button twice, or move the remote control, correct learning is not possible.

To continuing learning with other buttons, continue from procedure 2.





When learning has been completed, the remote control returns to the condition in procedure 1.

Press the PLAY button.

To end the learning operation, press the LEARN button.

[When learning is not possible]

After the selected CONTROL MODE button (for example VCR 1) flashes twice, and all the CONTROL MODE buttons flash, repeat the learning operation from procedure 2.

[When learning is not possible because memory is full]

After the selected CONTROL MODE button (for example VCR 1) flashes four times, the LEARN MODE is canceled.

If the memory becomes full even when you have used only a small number of buttons for learning, take the following steps.

• Try learning once more using the button that resulted in full memory.
Memory may appear to be full even when it is not owing to the two remote controls being too far apart, not enough power remaining in the batteries, or the effect of light from fluorescent lighting fixtures or direct sunlight.

• Check buttons already used for learning.
If the CONTROL MODE button remains lit after you have quickly pressed and released a button used for learning, memorization in that button is incorrect, resulting in the memory full condition. If you perform learning once more, abnormal data is cleared, returning you to normal conditions.

NOTE:
- *After pressing the LEARN button, if you do not press a button within about 30 seconds, the LEARN MODE is canceled.*
- *After pressing one CONTROL MODE button, if you do not press a button that can learn within about 30 seconds, the LEARN MODE is canceled. If a button other than a one that can learn is pressed, the condition for CONTROL MODE button input is resumed.*
- *After pressing an operation button that can learn, if a remote control signal is not received within 45 seconds, the LEARN MODE is canceled.*

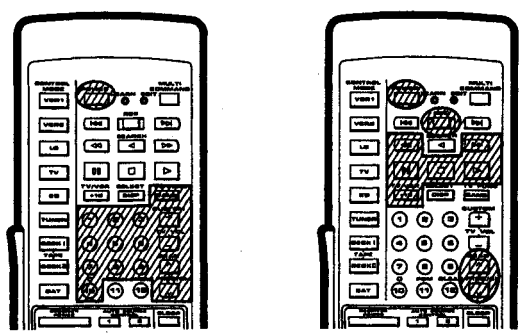
EDIT

In the EDIT MODE, there is the PRESET MODE and MULTI-EDIT MODE.

PRESET MODE (TV, VCR 1, VCR 2)

12 kinds of remote control signal formats are already preset for basic TV and VCR functions. If they conform to your TV or VCR functions, you can automatically preset operation buttons with the desired format's remote control signals and use to command operations. It is not necessary to learn commands one at a time.
Preset operation buttons are indicated in the diagram by ▨.
When you also want to use other buttons, use the LEARN operation to memorize commands.

(TV) (VCR)



Button functions are the same as Pioneer's unified remote control code functions, so refer to page 41 concerning TV functions, and page 40 concerning VCR functions.

NOTE:
- *If there is a remote control operation button for a function your TV or VCR does not have, operation is not possible.*
- *Depending on the kind of remote control signal, it may not be possible to preset TV FUNC buttons for TV operation.*
- *The Pioneer remote control code remains without presetting for TV DISP, 11 and 12 buttons and VCR DISP, 1 to 12 buttons.*

[Procedure for presetting]

1. **Press the EDIT button to switch to the EDIT mode.**
2. **Press one of the CONTROL MODE buttons (VCR 1, VCR 2, or TV).**
3. **Press one of the buttons 1 to 12.**
   - One kind of code is preset.
   - To continue presetting, repeat operation procedure 2, 3.
4. **Press the EDIT button.**
   - The EDIT mode is canceled.
5. **Confirm that the component (TV or VCR) can be operated by the preset code.**
   If operation is not possible, repeat the procedure from step 2, and press a different number button (1—12) at step 3 to search for a preset code that enables operation. Refer to the diagram on page 44.

[Operation example]

As a preset example, here is an explanation of how to preset in VCR 1.

1. **Press the EDIT button.**
   - The VCR 1, VCR 2, and TV CONTROL MODE buttons flash in sequence.
2. **Press the VCR 1 CONTROL MODE button.**
   - Only the VCR 1 button flashes.
3. **Press one of the buttons 1 to 12.**
   - For example, if you press button 1, the remote control signal format selected with VCR1 operation button 1 is preset. The CONTROL MODE buttons light in sequence (indicating that registration has been completed), and then the VCR 1, VCR 2, and TV buttons flash in sequence. (Returning to the condition in procedure 1.)
   - To continue presetting for VCR 2 and TV, repeat operation procedures 2 and 3.
4. **Press the EDIT button.**
   - The EDIT mode is canceled.
5. **Point the remote control at the sensor window of the VCR you want to operate and press an operation button to confirm that operation is possible.**
   - If operation is possible, presetting has been completed.
   - If operation is not possible, repeat operations from step 2, selecting a different number button (1 to 12) at step 3.

If there is a button among buttons 1 to 12 that cannot operate, press the EDIT button once more to cancel the EDIT mode, and memorize in the LEARN mode.

NOTE:
- *After pressing the EDIT button, if you do not press a button within about one minute, the EDIT mode is canceled.*
- *After presetting, you can use the LEARN mode to memorize a command in a preset button, but the preset signal is erased.*
- *After memorizing in the LEARN mode, if you preset operations under specified buttons, signals memorized in the LEARN mode are cleared.*

MULTI-EDIT MODE

A maximum of seven commands can be programmed into MULTI COMMAND button. This enables a series of signals to be transmitted simply by pushing the MULTI COMMAND button.

(Example) Programming the following three commands into the MULTI COMMAND button.
① RECEIVER POWER
② RECEIVER FUNCTION CD
③ CD PLAY (►)

1. **Press the EDIT button. (Switches to the EDIT mode)**
   - The VCR 1, VCR 2, and TV CONTROL MODE buttons flash in sequence.
2. **Press the MULTI COMMAND button. (Switches to the MULTI-EDIT mode)**
   - The CONTROL MODE buttons flash at random.
3. **Press the RECEIVER POWER button.**
   - The CONTROL MODE buttons go out, and then flash at random. (Registration is completed)

4. **Press the CD receiver input selector button.**
   - The CONTROL MODE buttons go out, and then flash at random. (Registration is completed.)
5. **Press the CD CONTROL MODE button.**
   - The CD button flashes.
6. **Press the PLAY (►) button.**
   - The CD button goes out, and then the CONTROL MODE buttons flash at random. (Registration is completed.)
7. **Press the MULTI COMMAND button.**
   - The CONTROL MODE buttons light in sequence (This means that registration has been completed), and then the VCR 1, VCR 2, and TV buttons flash in sequence.
8. **Press the EDIT button.**
   - The EDIT mode is canceled.

If you press the MULTI COMMAND button, these remote control signals are transmitted in the order programmed, so if CONTROL IN/OUT is connected (refer to page 24), and if remote control signals can reach both the receiver and CD player sensor windows, power to the receiver switches on, the input selector switches to CD, and the CD player starts playing. (When the CD player's power cord is plugged into the receiver's switched AC OUTLET.)

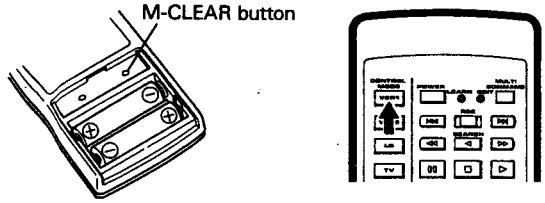
NOTE:

- *After pressing the seventh command, the MULTI-EDIT mode is registered automatically (The VCR 1, VCR 2, and TV CONTROL MODE buttons flash in sequence), but the EDIT mode is not canceled. To cancel the EDIT mode, press the EDIT button.*
- *After memorizing six or less commands, if you cancel the EDIT mode without pressing the MULTI COMMAND button again, all the registered commands are cleared, leaving the previous commands as they were.*
- *If a button is for transmission, even if it is not an operation button in the selected CONTROL MODE, registration is still possible. (Buttons such as the VCR 1 |◄◄).*
  In this case, during signal transmission, the CONTROL MODE button momentarily lights, but the remote control code is not transmitted.
- *If the component to be operated is installed at a distance, if there is an obstacle between a specific component sensor window and the remote control, or if component operation speeds are very different, MULTI-COMMAND operation may be incorrect. When repeating operations, first return to the initial settings for each component. For operations such as power ON/OFF, if components are switched ON, they can be switched OFF by transmitting a signal.*

RETURNING TO THE INITIAL SETTINGS

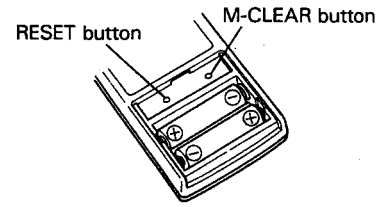
Initialization of particular CONTROL MODES

1. **Remove the battery compartment cover.**
2. **While pressing the M-CLEAR button inside the cover, press the button for the CONTROL MODE (for example VCR 1) you want to initialize.**
   - For example, if you initialize VCR 1 using the method mentioned above, the CONTROL MODE button lights for about one second, and the VCR 1 operation buttons are initialized.



Initializing the entire memory

1. **Remove the battery compartment cover.**
2. **While pressing the M-CLEAR button inside the cover, press the RESET button.**
   - Do not release the M-CLEAR button before releasing the RESET button. While pressing the M-CLEAR button, press the RESET button, and quickly release.
     Initialization is not possible if the buttons are pressed in the reverse order.
   - All the CONTROL MODE operation buttons are initialized, and data in the MULTI-COMMAND button is cleared.



REMOTE CONTROL CODES OF OTHER MANUFACTURERS PRESET IN THE PRESET

The following table shows the PRESET MODE buttons (1 to 12) used to call up the remote control codes of other manufacturers. Preset remote control signals in the table, however, may not always enable operation. If operation is not possible, switch to the LEARN mode, and learn signals from the VCR or TV remote control. Numbers in parenthesis indicate a reduced possibility of operation.

Manufacturer	TV	VCR
RCA	1, (10)	(1), (6)
ZENITH	3	(3), (4)
GE	8, (11), (1)	(1), (8)
SONY	4	4
TOSHIBA	5	5, (9)
HITACHI	6, (10)	6
PHILIPS	7	—
JVC	—	7
PANASONIC	8	8
MITSUBISHI	9, (10)	9
SANYO	—	10, (12)
SHARP	(2)	2
GOLD STAR	(10)	(11)
MAGNAVOX	(7), (10), (12)	(8), (9)
SYLVANIA	(7), (10), (12)	(8), (9)
QUASER	8	8
FISHER	—	12, (10)
WARD'S	(2), (7), (10), (11)	(2)

HINTS FOR BETTER RECEPTION

OUTDOOR FM ANTENNA

The main advantage of FM over AM is the quality of the broadcast signal. In order to benefit fully from the high signal quality of FM broadcasts, it is recommended that a special-purpose FM antenna be installed. In weak signal areas, a multielement (3-, 5-, or 7-element) antenna should be used.

GROUNDING

Grounding is recommended if reception of FM programs is impaired by noise. To ground, connect a thick polyvinyl insulated wire to the GND terminal and attach the other end to a metal water pipe or grounding bar or wind it around a copper plate and bury it.

NOTE:

Never connect a wire to a gas pipe for grounding since sparks may ignite the gas.

EXTERNAL AM ANTENNA

If it is not possible to obtain adequate AM reception even by changing the orientation of the AM loop antenna, a separate indoor antenna, or an outdoor antenna should be installed.

INDOOR AM ANTENNA

Use a vinyl insulated wire (5 — 6 m, 17 — 20 feet) and connect one end to the AM antenna terminal and affix the other end to the wall or ceiling, as high as possible.

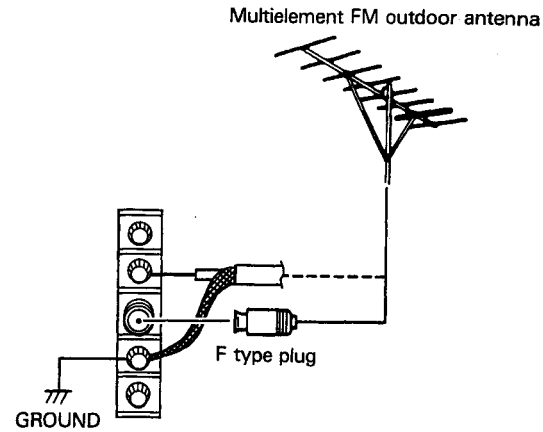
OUTDOOR AM ANTENNA

If reception quality is not improved sufficiently even when an indoor antenna is used, a vinyl insulated wire should be installed outside and fixed in place.

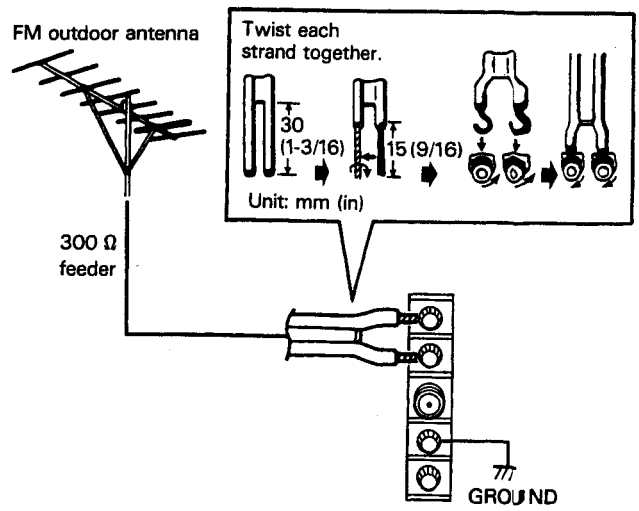
NOTE:

Do not detach the AM loop antenna when using an indoor or an outdoor AM antenna.

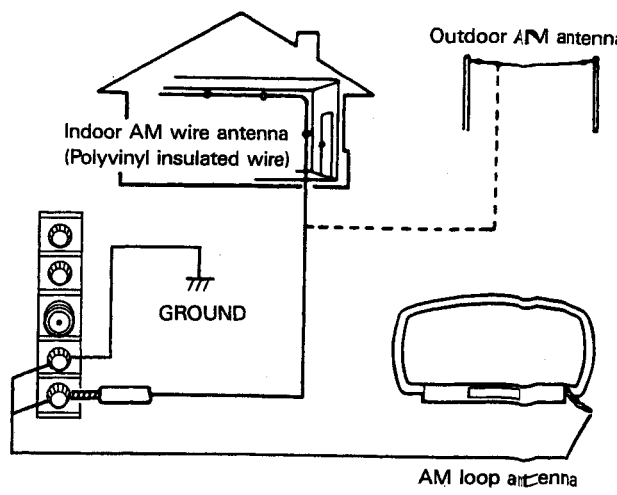
Connecting a coaxial 75 Ω cable



Connecting a 300 Ω feeder



AM antenna connection



TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
Power does not come on even when POWER switch is pressed.	• Power cord is disconnected. • Instances are rare, but the problem may be due to the operation of the protector circuit.	• Connect cord securely. • Unplug the power cord of the unit from the AC wall outlet, then plug it in again.
Control was not possible regardless of what operation button was pressed.	• Static electricity affected the unit when the air was dry, such as in winter.	• Unplug the power cord of the unit from the AC wall outlet, then plug it in again. • If static electricity is pronounced, it is recommended that you operate the unit using the remote control unit.
No sound is produced, even when the INPUT SELECTOR button is selected.	• Connections are incorrect. • The MUTING button is pressed. • TAPE 2 MONITOR button is in the ON position. • SPEAKERS buttons are turned OFF. • VOLUME is turned down. • Speaker connecting wires are disconnected from speaker terminals. • One or both of the input cords are disconnected. • Connector bars are disconnected.	• Consult pages 7 – 18 and perform connections correctly. • Press the MUTING button to cancel the MUTING effect. • Press the button again to the OFF position. • Press the SPEAKERS button to turn ON. • Raise volume. • Connect wires to terminals securely. • Connect input cords securely. • Connect bars securely.
Rear sound is not produced.	• SURROUND MODE button is OFF position. • DOLBY 3CH LOGIC is ON during playback. • REAR LEVEL control is minimum.	• Press the SURROUND MODE button to correct position. • When using DOLBY 3CH LOGIC, there is no sound from the rear channel. • Adjust REAR LEVEL control.
REAR L or R sound is not produced.	• REAR BALANCE is incorrect. • The sound is monaural.	• Press the REAR BALANCE R or L on the remote control unit to correct the balance. • Use the simulated surround mode.
No picture is produced, even when the INPUT SELECTOR button is selected.	• Connections are incorrect. • The VIDEO SIGNAL SELECTOR is not set properly. • The VCR and the selected INPUT SELECTOR button are not correct.	• Consult pages 7 – 18 and perform connections correctly. • Set correctly. • Press the correct button.
High noise level.	• Station has not been tuned in to correct frequency. • Antenna has not been connected or has become disconnected. **FM reception** • Accessory T-type antenna remains bundled up or it is not pointing in right direction. • Weak broadcasting station signals. **AM reception** • AM loop antenna is not pointing in right direction. • Weak broadcasting station signals. • Noise being picked up from this unit and other equipment (especially electrical appliances using motor or fluorescent lights).	• Tune the station in correctly. • Connect the antenna securely. • Stretch both ends of antenna taut and locate direction yielding optimum reception. • Replace accessory T-type antenna with outdoor FM antenna. • Change the AM loop antenna's direction and find a position where reception is improved. • Erect outdoor AM antenna or connect ground wire. • Stop using appliances generating noise or remove them from vicinity of stereo equipment. • Separate the loop antenna from the unit by some distance.
No auto stop.	• Input signals are not strong enough.	• (FM) If the T-type antenna is being used, change to an outdoor antenna.

Symptom	Cause	Remedy
TV source cannot be seen when the VCR's TV tuner is used.	• TV antenna is not connected to VCR, or connections are faulty. • You are attempting to watch a TV source using a VCR with copy system connections. In general, when copy system connections are made, the VCR's TV tuner function ceases to operate. For details, consult the operating instructions for your VCR.	• Consult the VCR's operating instructions, and connect antenna correctly. • Disconnect the copy system connection.
Video tape copies cannot be made with the VCR.	• Video tape copy connections have not been made. • INPUT SELECTOR and REC SELECTOR settings are incorrect.	• Look again closely at the section VIDEO SYSTEM CONNECTIONS on page 9, 10 and 12, and connect correctly. • Refer to the explanation of VIDEO RECORDING on page 31.
Remote control does not work.	• Batteries are dead or no batteries in remote control unit. • Poor angle or too great a distance from the remote sensor window. • There is an obstacle between you and the remote sensor window. • A fluorescent light is shining on the remote sensor window.	• Insert new batteries. • Use within seven meters and within a 30 degree angle of the remote sensor window. • Change your position or move the obstacle. • Move so fluorescent light does not shine directly on amplifier front panel remote sensor window.
Sound in MULTI ROOM & SOURCE Sub room is different.	• Main room is in the surround mode. • A component has been selected with the REC SELECTOR.	• Switch surround OFF. • Switch the REC SELECTOR OFF.

Abnormal functioning of this unit may be caused by lightning, static electricity, or other external interference. To restore normal operation, turn the power off and then on again, or unplug the AC power cord and then plug it in again.

SPECIFICATIONS

Amplifier section

OUTPUT POWER (POWER AMP IN) (Front)

Continuous average power output of 125 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.005 % total harmonic distortion.**

Continuous Power Output
Rear, center ..... 40 W + 40 W, 40 W (1 kHz, 0.08 %, 8 Ω)
Dynamic power (4 Ω/2 Ω) ..... 260 W/280 W

Audio section

Input (Sensitivity/Impedance)
PHONO MM ..... 2.5 mV/47 kΩ
CD, LINE, TAPE 1/DAT, TAPE 2, VIDEO, TV,
LD, VCR 1, VCR 2, VCR 3 ..... 150 mV/47 kΩ
POWER AMP IN ..... 1 V/47 kΩ
Phono Overload Level (T.H.D. 0.08 %, 1 kHz)
PHONO MM ..... 150 mV
Output (Level/Impedance)
TAPE 1/DAT REC, TAPE 2 REC, VCR 1 OUT, VCR 2 OUT
..... 150 mV/2.2 kΩ
Frequency Response
CD, LINE, TAPE 1/DAT, TAPE 2, VIDEO, TV,
LD, VCR 1, VCR 2, VCR 3 DIRECT .... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Tone Control
BASS ..... ±8 dB (100 Hz)
TREBLE ..... ±8 dB (10 kHz)
Loudness Contour ..... +6 dB (100 Hz)
+3 dB (10 kHz)
Signal-to-Noise Ratio (IHF, short-circuited, A network)
PHONO MM ..... 82 dB
CD, LINE, TAPE 1/DAT, TAPE 2, VIDEO, TV,
LD, VCR 1, VCR 2, VCR 3 DIRECT ..... 98 dB
Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
PHONO MM ..... 77 dB
CD, LINE, TAPE 1/DAT, TAPE 2, VIDEO, TV,
LD, VCR 1, VCR 2, VCR 3 ..... 80 dB

VIDEO Section

Input (Sensitivity/Impedance)
VCR 1, VCR 2, VCR 3, LD, TV, VIDEO ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR 1, VCR 2, TO MONITOR TV 1, 2,
MULTI-ROOM & SOURCE VIDEO OUT ..... 1 Vp-p/75 Ω
Frequency Responce
VCR 1, VCR 2, VCR 3, LD, TV,
VIDEO → TO MONITOR TV ..... 5 Hz – 10 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio ..... 55 dB
Cross Talk ..... 55 dB
Enhancer ..... ±3 dB (2 MHz)

[S terminals]

Input (Sensitivity/impedance)
VCR 1, VCR 2, VCR 3, LD ..... Luminance signal: 1 Vp-p/75 Ω
Color difference signal: 0.286 Vp-p/75 Ω
Output (Level/impedance)
VCR 1, VCR 2, TO MONITOR TV... Luminance signal: 1 Vp-p/75 Ω
Color difference signal: 0.286 Vp-p/75 Ω
Signal-to-Noise Ratio
Luminance signal ..... 55 dB
Cross talk ..... 55 dB

Surround section

Input (Sensitivity/Impedance)
REAR POWER AMP IN ..... 1 V/47 kΩ
CENTER POWER AMP IN ..... 1 V/47 kΩ
Output (Level/Impedance)
REAR PRE AMP OUT ..... 1 V/1 kΩ
CENTER PRE AMP OUT ..... 1 V/1 kΩ

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono; 10.8 dBf, IHF (0.95 μV/75 Ω)
50 dB Quieting Sensitivity ..... Mono; 15.3 dBf, (1.6 μV/75 Ω)
Stereo; 37 dBf, (19.5 μV/75 Ω)
Signal-to-Noise Ratio ..... Mono; 80 dB (at 65 dBf)
Stereo; 76 dB (at 85 dBf)
Distortion ..... Mono; 0.08 % (100 Hz)
0.08 % (1 kHz)
0.2 % (6 kHz)
Stereo; 0.2 % (100 Hz)
0.15 % (1 kHz)
0.3 % (6 kHz)
Capture Ratio ..... 1.0 dB
Alternate Channel Selectivity ..... 65 dB (400 kHz)
Stereo Separation ..... 50 dB (1 kHz)
35 dB (30 Hz to 15 kHz)
Frequency Response ..... 30 Hz to 15 kHz $^{+1}_{-3}$ dB
Image Interference Ratio ..... 50 dB
IF Interference Ratio ..... 80 dB
AM Suppression Ratio ..... 55 dB
Spurious Interference Ratio ..... 70 dB
Antenna Input ..... 300 Ω balanced
75 Ω unbalanced

AM Tuner Section

Frequency range ..... When 10 kHz step: 530 kHz – 1,700 kHz
When 9 kHz step: 531 kHz – 1,602 kHz
Sensitivity (IHF, Loop antenna) ..... 300 μV/m
Selectivity ..... 30 dB
Signal-to-Noise Ratio ..... 50 dB
Image Interference Ratio ..... 40 dB
IF Interference Ratio ..... 60 dB
Antenna ..... Loop antenna

Miscellaneous

Power requirements
- U.S., Canadian models ..... AC 120V, 60 Hz
- Other destination models ..... AC 110/120—127/220/240V (switchable), 50/60 Hz

Power consumption
- U.S., Canadian models ..... 600 W, 790 VA
- Other destination models ..... 970 W
- In stand by condition ..... 3 W

AC Outlets
- U.S. and Canadian models... SWITCHED x 2: TOTAL 200 W MAX
  UNSWITCHED x 1: 200 W MAX
- Other destination model..... SWITCHED x 2: TOTAL 100 W MAX
  UNSWITCHED x 1: 100 W MAX

Dimensions ..... 420 (W) x 162 (H) x 421 (D) mm
16-9/16 (W) x 6-3/8 (H) x 16-9/16 (D) in

Weight (without package) ..... 14.6 kg (32 lb 3 oz)

Furnished Parts

FM T-type antenna 1
AM Loop antenna 1
Size "AA" Alkaline batteries (LR6/AM-3) 2
Remote control unit 1
Operating Instructions 1

NOTE:

Specifications and the design subject to possible modifications without notice due to improvements.

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

** *Measured by Audio Spectrum Analyzer.*

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzene, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

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